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A National Newspaper for Every Branch of the Industry

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Automotive Daily News

CARS · SHOP EQUIPMENT · TRUCKS · AVIATION · PARTS · ACCESSORIES · TIRES

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Willys Predicts Favorable Economic Turn Very Soon; Returning to U.S. This Month

Ambassador to Poland Winding Up Affairs Abroad To Take Up Actively the Board Chairmanship of His Company

New York, May 5.—Predicting a favorable economic turn in the near future, John N. Willys, United States ambassador to Poland and chairman of the board of Willys Overland Company, sailed on the Bremen to return to Warsaw after receiving President Hoover's permission to be relieved at an early date from his duties as ambassador in order to take up again actively the board chairmanship of Willys Overland. He will conclude his affairs in Poland and return at the end of this month.

After spending two weeks in Toledo conferring with his Willys-Overland associates he expressed optimistic opinions about the future of Willys-Overland and the return of American prosperity.

"I expect to return within a few weeks and put my efforts into doing what I can to help the policies and finances of the Willys-Overland Company, which I founded twenty-five years ago," Willys said.

"I am conifdent that the constructive statesmanship of President Hoover, particularly during the last year of the most disastrous depression in modern history, will receive increasing recognition—its effect being felt already in improved credit conditions, which will be translated into a definite turn in the business tide. No upheaval so complete and far-reaching in economic social or political conditions could be expected to right itself quickly, but a great part of the groundwork is being laid for sounder prosperity. I am optimistic not only for the future, but the near future, if Congress can be made to realize the extreme importance of quickly balancing our budget with some form of tax which will be general and not discriminatory toward any group.

"The pendulum always swings too

(Continued on Page 7)

D. W. RUSSELL MADE HEAD OF RAILWAY SALES FOR FARGO

Detroit, May 5.—Col. A. C. Downey, president, today announced the appointment of D. W. Russell as vice-president in charge of railway sales of the Fargo Motor Corporation. In this capacity he will supervise the sales of all Fargo products to railroads and their affiliations.

Mr. Russell, who joined the Fargo corporation in August, 1931, as railroad liaison representative, has been connected with the truck and bus industries since 1914, when he entered the sales department of the White Company in Cleveland.

With the exception of time served in the army during the World War, when he made a brilliant record in motor transport activities overseas, Mr. Russell was with the White Company for fourteen years. From 1924 to 1928 he was manager of the White branch in Little Rock, Ark. He was then made vice-president and general manager of the Southwestern Transportation Company, truck and bus subsidiary of one of the large southwestern railroads.

PONTIAC SHOWS GAIN IN NEW AND USED SALES IN NEW YORK DISTRICT

New York, May 5.—The New York Zone Office of the Buick-Oldsmobile-Pontiac Sales Company announces that retail deliveries of new Pontiacs by the Pontiac retail stores in New York for the month of April showed an increase of 55 per cent. over March deliveries.

A. C. Tiedemann, Jr., general manager of the Pontiac retail stores in New York, advises that deliveries for the month of April, 1932, exceeded those of any month since the operation of these branches by the factory organization.

Further indication of an upward trend is reflected in the used car sales recorded by the New York Pontiac retail stores during the month of April. Used car sales for this period showed an increase of 65 per cent. over the month of April in 1931, which was an increase of 35 per cent. over the month of March, 1932. The used car departments for the month of April, equalled the record set by the new car departments, in delivering more used cars during the month than in any previous month since the operation of these branches by the factory organization.

In addition to the increase in deliveries shown during the month of April, the local branches entered the month of May with unfilled orders higher than at any other time.

TOOL MARKETS SLOW; FORD ORDERS HELP

New York, May 5.—"As business in many metal-working lines has shown no improvement, on the contrary having slipped a little in April, it is not surprising that machine tool trade holds out no definite promise of early gains," says Iron Age.

"The Ford Motor Company is reported to have placed orders for some crank shaft equipment. An order for $100,000 worth of presses from another source is in prospect. Otherwise, there are no high spots in the machinery markets.

"In most sections dealers and makers of tools are getting nothing except an occasional order for one tool. Even repair parts, for which there was a fairly active demand a month or two ago, have lapsed into dullness."

Model Reduction Proposal Gains Support of Midwest Dealers

Suggestion of N. A. C. C. Sales Managers Proves Popular; Plan to Advertise Delivered Prices of Cars Discussed

By WILLIAM C. CALLAHAN

New York, May 5.—Keen interest has been manifested by dealers and distributors in the two proposals by the sales managers of the National Automobile Chamber of Commerce; one to reduce the present number of car models and options and the other to advertise delivered prices of cars rather than the f. o. b. prices. That the model reduction plan would meet with general approval is evident from a survey conducted by Automotive Daily News, but opinion regarding the use of delivered prices in advertising is not so crystallized.

It is evident that in bringing these questions into light the N. A. C. C. sales chiefs have touched upon problems that long have been close to the dealer's heart. In a survey among dealers and distributors in New York, Philadelphia and Detroit, the results of which were published earlier in Automotive Daily News, it plainly brought out that some action toward cutting down the present wide range of models would be considered a boon to the dealer and would undoubtedly effect further economies in production at the factories.

Today Automotive Daily News correspondents in Chicago and St. Louis send reports that indicate a favorable attitude on the part of the dealers and distributors in those cities toward the two proposals, and particularly toward the proposal to reduce the number of models and options.

The proposal to advertise the delivered prices of new models will come up for further discussion before the sales managers at their meeting on May 10, and an expression of dealer opinion before that time will prove invaluable in helping them to reach a decision.

In these days of political and economic stress it has become a byword to "write your congressman and senator" regarding all things, from cyclones down to a stirring among the branches. You can help yourselves and your sales managers

(Continued on Page 11)

STERLING TRUCK UNFILLED ORDERS IN APRIL GAIN

Milwaukee, Wis., May 5.—The Sterling Motor Truck Company closed the month of April with more unfilled orders than at any other similar period since the spring of 1930, according to officers. According to E. M. Sternberg, president of the concern, on the last day of the month alone sales were closed totaling over $100,000.

This is the largest single day's business booked since April, 1929, Mr. Sternberg said. This business, together with other sales obtained during the month, gives the company over $250,000 worth of unfilled orders to carry over into May. Every indication points toward even greater sales during the remaining spring months, it was stated.

Of special significance is the fact that most of the trucks sold were of the heavy duty type and will be used for road and other public construction work. Other sales were reported to have been made to commercial and long distance freight haulers, all of which, it is stated, is a good indication of improving business activities. Most of the sales are repeat business, Mr. Sternberg stated.

One of the April orders was for $50,000 worth of heavy duty motor trucks from the Marquette Cement Company, for use in stripping operations in the cement fields in Missouri. The trucks are the largest built by any manufacturer, having a capacity of fifteen to eighteen tons. They are powered with 125 horsepower Waukesha motors and traction is supplied by the four rear wheels, which are chain driven by one single driving unit.

EYNON TO PROTEST SPEED ADVERTISING TO COMMISSIONERS

Harrisburg, Pa., May 5.—The increasing speeds being built into automobiles, the advertising of these speeds and the relationship of speed to increasing motor vehicle fatalities will be brought before the meeting of the Eastern Conference of Motor Vehicle Administrators at Washington today and tomorrow by the Pennsylvania state motor vehicle commissioner, Benjamin G. Eynon, according to an announcement by the State Department of Revenue.

Mr. Eynon will offer suggestions for meeting the situation, it was stated. (A statement by the Connecticut commissioner of motor vehicles, Robbins B. Stockel, that he would present to the conference the subject apeared in a recent issue of Automotive Daily News.)

"The speed being built into present day automobiles is out of all proportion to safety and motorists' needs," Mr. Eynon said. "Speed has reached the point where it must receive the serious consideration of all those officially intrusted with safety on the highways. The co-operation of motor vehicle manufacturers is necessary. The industry's responsibility in helping reduce accident hazards is a heavy one."

APRIL TRUCK SALES SHOW 10% GAIN OVER MARCH; LOSS FROM 1931

Detroit, May 5.—R. L. Polk & Co. have just released commercial vehicles sales for the month of April in four states, the first reporting for that period. The states are Delaware, Illinois, North Dakota and West Virginia, and the total sales amount to 1,162 truck units.

This compares with 1,042 commercial units sold in these four states in March, 1932, and with 2,606 in April, 1931. The gain of April over March in these early returns amounts to about 10 per cent., while the decrease under April last year is somewhat over 55 per cent.

The following tabulation shows sales this April and last and in March in the four states mentioned above:

	April, 1932	April, 1931	March, 1932
Delaware	65	133	56
Illinois	781	1,775	780
North Dakota..	84	254	54
West Virginia..	232	444	147
	1,162	2,606	1,042

FORD LONG BEACH PLANT TO RESUME

Long Beach, Cal., May 5.—The Ford Motor Company assembly plant at Long Beach, Cal., is to resume operations this week, employing at the start 500 employees, according to an announcement yesterday by Ira B. Grove, general manager. The plant has been closed since February, when 2,300 men were employed.

The Ford motor ship, Lake Oswego, is arriving in Long Beach Harbor with a cargo of parts from the East, to be followed shortly by the arrival of the Lake Ormus, which left Port Chester, Pa., last week, the announcement stated. Assembling of the four-cylinder and commercial jobs is being started this week to be followed by assembly of the V-8.

FORD OF CANADA PLACES CHASSIS FRAME ORDER

Toronto, Canada, May 5.—An order for 1932 chassis frame requirements of Ford Motor of Canada has been received by the National Steel Car Company, at Hamilton, near here, and as result a number of former employees are being recalled.

DODGE BROTHERS MAKE CHANGES IN SALES PERSONNEL

Detroit, May 5.—Several changes in regional sales personnel are announced by Dodge Brothers Corporation. John A. Talley has been appointed sales representative covering the Memphis zone, succeeding C. N. Roby, recently transferred to the New Orleans zone to succeed I. R. Collard, who has joined the Fairchild Motor Company, Dodge dealers at New Orleans. G. S. Danaher has been appointed sales representative covering the Brooklyn zone, succeeding A. R. Widenman, resigned.

R. V. Allen has been appointed sales representative covering the Dallas zone, succeeding D. Deming, resigned. Alden D. MacLellan has been appointed truck representative in the Philadelphia and Washington zones, succeeding Walter E. Shanahan, recently appointed truck representative in the New York region.

10 Makes Show Sales Gain In Louisville to Date

Louisville, Ky., May 5.—Although April new car sales in Louisville slumped very materially, or from 756 last year to 395 this year, and for the four months from 1,982 to 1,256 this year, still there are some cars that are showing up very well, and a few showing gains.

In the gain column for four months was found De Soto, with 21 sales, as against 17 last year; Dodge, the same at 19 both years; Franklin, 3, as against 2 last year; Nash, 32, as against 16 last year; Oldsmobile, 21, as against 16 last year; Pierce-Arrow, even at 5 each year; Plymouth, 83, as against 36 last year; Pontiac, 56, as against 24; Reo, 10, as against 7; Studebaker, 45, as against 40, plus 29 Rockne cars; while Hudson was just one car behind, with 14, as against 15 last year.

The increases are in the light cars, with Plymouth, Pontiac, Oldsmobile, De Soto, Dodge, Nash, Studebaker and Rockne showing the chief gains. Nash and Studebaker can hardly be classed as light cars. At the same time Buick was well up, with 51 sales this year, as compared with 55 last year.

The record for the four months reads:

	4 Mos. 1931.	4 Mos. 1932.
Auburn	28	13
Austin	4	..
Buick	55	51
Cadillac	8	4
Chevrolet	790	499
Chrysler	47	37
Cord	2	1
De Soto	17	21
De Vaux	..	1
Dodge	19	19
Durant	8	1
Essex	71	44
Ford	573	124
Franklin	2	3
Gardner	1	..
Graham	23	10
Hudson	15	14
Hupmobile	23	8
La Salle	3	2
Lincoln	7	4
Marmon	20	14
Nash	16	32
Oakland	6	5
Oldsmobile	16	21
Packard	18	14
Peerless	5	5
Pierce Arrow	5	5
Plymouth	36	83
Pontiac	24	56
Reo	7	10
Rockne	..	29
Studebaker	40	45
Willys	78	72
Willys-Knight	20	14
Totals	1,982	1,256

HUPP ADDED THIRTY OUTLETS IN APRIL

Detroit, May 5.—Retail and wholesale outlets of the Hupp Motor Car Corporation climbed upward at the rate of one a day during April, according to a company announcement, thirty new firms signing the Hupmobile franchise.

Five distributors, one of which operates in Canada, are included. These are: Shaw's, Inc., Augusta, Me.; Missoula Hupmobile Company, Inc., Missoula, Mont.; Jordan Motor Car Company, Oswego, N. Y., and W. E. Ferris, Syracuse, N. Y. The Royal Auto Sales of Ottawa, Ontario, is the new distributor in Canada.

Among the new dealers are: Leo A. Rex Motor Company, Colorado Springs, Col.; Arthur F. Casey, South Norwalk, Conn.; Lange Bros. & Co., Chicago, Ill.; Ouellette Motors, Inc., Brunswick, Me.; Dovor Motor Sales Company, Boston, Mass.; Newton Auto Sales, Inc., Newton, Mass.; Farwell Motors Company, Flint, Mich.; Huddleston Motor Company, Leland, Miss.; Ascione Motor Sales, Inc., Jersey City, N. J.; Ascione Motor Sales, Inc., Union City, N. J.; Tumalty Garage, Alabama, N. Y.; Albert Jacobs, Brooklyn, N. Y.; Mill Street Garage, Franklinville, N. Y.; Ossining Service Station, Ossining, N. Y.; Hempstead-Westbury Motors Corporation, Westbury, L. I.; Knox Motor Company, Cambridge, O.; Kelly R. Hannan, Lancaster, O.; Dan G. Poland, Ardmore, Okla.; T. Holden, Bradford, Pa.; Walter E. Naylor, Duryea, Pa.; Simon Czernecky, Shenandoah, Pa.; F. G. Molander, Rawlins, Wyo.; H. Weeks, Englehart, Ontario; Mason-Kells Motor Sales, Ltd., Welland, Ontario; R. N. MacNeil, Sydney, Nova Scotia.

BRESEE HEADS SYRACUSE DEALER ASSOCIATION

Syracuse, N. Y., May 5.—Stephen Bresee, head of the Bresee Chevrolet Company, was elected president of the Syracuse Automobile Dealers Association at the annual meeting of that organization in Hotel Syracuse. He succeeds Hubert J. Wright, who continues a member of the board of directors.

Other officers chosen were: Vice-president, C. S. Forsythe; secretary-treasurer, A. W. Chapin; assistant treasurer, C. H. Hayes. In addition to the officers the following were named members of the board: Le Roy Casper, George A. Fonda, and J. F. O'Conner.

Owners of 1,500,000 Business Vehicles Will Get the Issue of May 20th

Fleet owners having 10 or more vehicles, 25,000 names, will receive the truck issue May 20th. Only Automotive Daily News can provide such wide distribution at no additional cost to the advertiser.

If you want to reach not only those owners but all exclusive truck dealers, important bus operators, 8,000 passenger car dealers and important factory officials, use that May 20th issue with a page at $350; half page at $175 or a quarter page at $87.50.

Forms close 2 days preceding publication.

Automotive Daily News

H. A. TARANTOUS, *Bus. Mgr.*, 350 HUDSON STREET, N. Y. C.
DETROIT OFFICE: Geo. M. Slocum, Manager
Fisher Building, Detroit, Mich.
WESTERN OFFICE: Willard R. Cotton, Manager
333 No. Michigan Ave., Chicago, Ill.

PLYMOUTH SALES SHOW STEADY GAIN OVER 1931 LEVELS

Detroit, May 5.—Both retail deliveries and shipments to dealers in the United States alone by Plymouth Motor Corporation for the month of April show a big increase over the same month a year ago, according to a statement issued here today by H. G. Moock, general sales manager. This makes the month just over the biggest April in Plymouth history.

Shipments to De Soto, Dodge and Chrysler dealers during April showed an increase of 396 per cent. over April, 1931, the statement said, while retail deliveries by these same dealers for the first three weeks in April (the latest available figures) show an increase of 202 per cent. over the same weeks last year.

In addition to these important monthly increases in both shipments and retail deliveries, the statement points out that Plymouth shipments have shown a continuous week-to-week increase, as well as material increase over the corresponding period a year ago since the week ended February 27.

Retail deliveries have also shown a continuous week-to-week increase as well as a decided gain over their corresponding weeks in 1931, since March 12. Figures show many of these week-to-week increases to be greater than 100 per cent., it was stated.

MASS. TRUCK CLUB OPPOSES NEW RATES

Boston, May 5.—The opposition of the Motor Truck Club of Massachusetts to the proposed new pick-up and delivery service to be inaugurated by the Boston & Maine Railroad was heard by the state Public Utilities Department.

The new service rates to be charged were explained by J. R. MacAnanny, assistant freight traffic manager of the Boston & Maine.

The opposition of the Motor Truck Club, as expressed by its attorney, Wallace M. Walker, was that the new tariff discriminated against certain shippers who were not included in the laying out of zones by the railroad. Many shippers an equal distance from Boston to more fortunate neighbors will be discriminated against in the new rates, Walker said. He felt this would bring about an extension of this service to the entire service, when shippers complained. The result would be harmful to motor truck transportation, he said.

PRODUCTION ACTIVITY

By RAY B. PRESCOTT,
Marketing Counselor

The production schedules of the motor industry failed to make more than just the normal seasonal gain during the week of April 30. It becomes increasingly evident that the sales shows held all over the country by several large car manufacturers have not been very fruitful, or the result would have been shown now by increased schedules. Ford is quite evidently not going ahead as fast as he hoped.

The index figure for the week of April 30 remains the same, at 55, just as it was the week previous. This is 25 per cent. below the same week of a year ago, when the index figure was 73.

CONTINENTAL MEETS DIVCO SALES CHIEFS

Detroit, Mich., May 5.—Twenty-five executives and salesmen, under the direction of L. J. Kanitz, general sales manager of Continental Motors Corporation, have just completed a two-day joint conference held by members of the National Sales staff of the Continental Motors Corporation and the Divco Detroit Corporation, which was recently acquired by the former company.

The conference was concluded with an inspection trip of the properties of the two corporations at Detroit, Muskegon and Grand Rapids.

SPARKS from DETROIT

Tires of the Future
* * *
Al Weeks, Announcer
* * *
Heart to Heart Highways
* * *
Barney's Not Barmy
* * *
Speed Test
* * *

Chris Sinsabaugh—Detroit Editor

DE SOTO and Graham-Paige breaking out with announcements that they are offering doughnut tires as optional equipment and the statement that comes from the United States Rubber Company that the department turning out low-pressure casings is working seven days a week are not the only signs that the industry is giving most serious consideration to the rival of the balloon.

* * *

ONLY THIS WEEK there was held in Detroit a meeting of experts, brought together by the Tire and Rim Association, for the purpose of discussing the doughnut and how it is to be handled by wheel and tire makers. Tire companies sent their engineers here for the round-table.

As yet, however, nothing has been announced as to the conclusions arrived at, but it indicates that the industry thinks the time is not far off when the low-pressure tire will be offered as standard equipment. Some think it may be one of the features of 1933; others that 1934 will be the year for the adoption of this type.

* * *

THE CHRYSLER-ZIEGFELD radio broadcast is giving a worthy young Detroiter an opportunity to set himself up in another profession. Whereas one Al Weeks has become a fixture in the automobile industry through his connection with Advertisers, Inc., he now threatens to become a rival of Graham McNamee.

When Plymouth filmed "Behind the Scenes," it was Al Weeks who was selected to do the talking. He made good, so when Chrysler went on the air with the Ziegfeld presentation Weeks got the job of doing the broadcasting. He's made good in a big way, and you can judge his worth Sunday night, when Will Rogers goes on. Weeks is now in California, to handle the mike and introduce Rogers to his unseen audience.

* * *

A RECEIVER has been appointed for the Detroit and Canada Tunnel Company, which operates the underground connection to the Dominion, which the column calls the Heart-to-Heart Highway, because it runs from the heart of Detroit to the heart of Windsor.

Don't think because a receiver has been appointed that the tunnel is a flop. Instead, it is claimed that the income is sufficient to meet operating expenses, but not enough, because of economic conditions, to pay interest on the funded debt.

* * *

I LIKE the famous Sheepshead Bay Speedway of New York, which now has been converted into a flourishing subdivision. As I recall it, every race meet held on that board oval was a financial success, but an overhead of $300,000 a year killed the enterprise. Not enough race meets could be run each year to meet this big obligation.

* * *

WHEN BARNEY OLDFIELD told me, just before the New York show, that he intended to have another crack at that straightaway speed record at Daytona, I thought the old boy was getting barmy, as the English would say. But it seems he is serious. He's hobnobbing with Harry Miller, famous builder of racing cars. Now it looks to be something more than talk. Barney feels that while he may not be able to cavort around the speedways any more, yet in a straightaway trial and with the experience of a former record holder back of him, he can bring the coveted mark back to this country.

* * *

IT LOOKS AS IF there will be a real speedfest at Daytona next spring. Campbell, the Englishman, is expected back for an effort to boost his present mark; Oldfield will be there, and now I hear of a Detroit man who is quietly making his plans to join the party. His name cannot be mentioned at this time, but it is said Harry Miller is to build the car and that Peter De Paolo will drive it.

De Paolo works for De Soto, but it is not Walter Chrysler who is backing this entry, although it has been said that the proper place to demonstrate floating power would be Daytona beach.

Retail Salesmen—This Is Your Page

This department is devoted to the interests of the retail sales division of the industry. Salesmen, this is your department. Automotive Daily News wants you to get something from this department that will help you in your work on the firing line. It wants you to pass on your own experiences, successes, failures to help your brother salesmen. Send in your story in the form of a letter, or even a postal card, and let us get it ready for publication. Your achievement or your mistake may help another salesman to make sales or avoid errors that cost you commissions.

Dealers read this page. Give us the benefit of your reactions on these problems that affect the work of your salesmen, the men on the firing line, the men who bring home the bacon or don't.

HOW TO PRESENT YOUR CAR

In the La Salle Extension University course of automobile salesmanship, made with the co-operation of the Chrysler Sales Corporation, there is a section devoted to the proper method for the salesman to use in presenting his car to his prospect.

It is possible here, obviously, to give only the generalities of the operation, but the course gives detailed plans for organizing the presentation and selling the prospect. Following is the outline of the sales presentation method:

The value of being able to organize your presentation of the car, as well as your presentation of the buying values, can't be overestimated!

Accordingly, we have examined carefully the methods in use by the most experienced and successful salesmen in your (Chrysler) organization, and we have combined all the best methods into one standard presentation which has proved its value under the exacting tests of actual experience.

1. Stand a few feet from the car, so that your prospect gets a three-quarter front view of the driver's side.

From this point, you can discuss the lines of the car, its harmonious curves, its style and beauty, and its perfection of finish.

Throughout this presentation, we shall assume that you are showing a four-door sedan. To avoid confusion, we shall outline the entire presentation on the assumption that the prospect is interested in this particular model. You will thus be able to memorize more quickly the most desirable procedure.

Of course, once you have learned what to do with the four-door sedan presentation, it will be an easy matter to modify your tactics so as to go through a similar procedure with a coupe, roadster, or any other model.

2. Now, having given your prospect a good sales talk on the buying values which can be seen and appreciated from the first position, you lead him up to the car and, standing at his left throw open both doors, at the same time inviting him to note the spaciousness and roominess of the beautifully finished interior.

You talk to him about the body with its wide doors and ample leg and head room, about the comfortable cushions and the beauty of the upholstery, and about all those other values which can be seen best from this position.

3. Next, you invite him to get into the rear seat (at the same time blocking the way to the driver's seat) and have him see for himself how comfortable it is.

You talk to him about how well suited the car is to the comfort of his friends and his family, and you show him how carefully thought out all the details and refinements of the interior fittings are.

4. Next you ask him to step out again, and you walk with him around the rear of the car, stopping to point out the special features visible at this point.

These may include the rear window, the protected gasoline tank, the shock absorbers, the brakes, the springs, etc.

5. Next you take him up to the engine, lift up the hood on the right-hand side and talk to him about the mechanical and engineering features of the car and about the special values, which seem appropriate here.

Naturally, you discuss the engine, the lubrication, the cooling and fuel supply systems and other features.

6. When you have finished with those features, which can most readily be seen or described from a position alongside the engine, take him around the front of the car to the left-hand side and get him inside, behind the wheel, as though he were actually driving.

Get him comfortably seated, and then try to make him feel as though he owned the car, as though he had already bought it. Sum up all the value points which you have already covered and emphasize particularly those in which you saw he was unusually interested.

By this time you probably will have discovered his dominant buying motive (or motives), and you will find it advantageous to bring out a few additional value points which apply particularly to those motives and which you have not discussed or brought out previously.

When you have finished a good summary of these features, it is time to ask for a road demonstration.

7. Now take him out and give him a demonstration and, during the course of it, **prove** to him that the car really **fulfills** all the claims which you have made for it.

8. Having finished the road demonstration, end up at the salesroom and again summarize all the values which you have brought out, and then lead into your close.

REDUCES OPERATING COSTS BY TRAINING TRUCK OPERATORS

Training of drivers and frequent inspection of its truck fleet have reduced operating costs considerably, according to Louis E. Marron, president of the Home Fuel Company, with headquarters in Passaic, N. J.

"Our trucks are designed for the different kinds of service that we are called upon to give," Mr. Marron says. "Many of our customers have large buried storage tanks with the fill pipes extended to the curb line. This is much the best practice, because we can use the big trucks, which can deliver large quantities of oil at a minimum cost. If we are obliged to enter the private driveway of a customer we must use smaller and lighter trucks that will not break through when the ground is soggy. Then, we always put a drip pan over the fill pipe, so that oil will not spill onto and damage the grass. These are little things, to be sure, but it is the sum total of such little things that makes up the whole.

"Take, for example, the question of drivers of our trucks. We have been very particular in the selection of these men. They are uniformed, and you know how a uniform raises the morale of any group. They perform their duties just a little better than they would in ordinary clothes. They hold their chins a little higher. The little 'Home Fuel Oil Company' insignia is a badge of their desire to serve our customers to the last degree. These men go out on emergency calls and deliver oil late at night or under adverse weather conditions, knowing that they are depended on to keep a home from freezing up through failure of the owner to order oil. They realize the possible danger to children and old people, and go out on these emergency runs with a smile."

POLICY OF PERSONAL CONTACT COMBINED WITH LOCALIZED ADVERTISING SELLS TRUCKS

By CHARLES B. BARR

A well-developed policy of personal contact and localized advertising has enabled Geghan-Allerton, Inc., Studebaker and Pierce-Arrow dealership of 379 West Main St., Waterbury, Conn., to establish an excellent sales record in the commercial car field, despite adverse economic conditions in the city.

Joseph P. Geghan, president, attributes his firm's success in truck sales to consistent coverage of the field, coupled with extensive newspaper advertising which helps the truck buyer as well as the dealership.

The dealership's representatives make it a policy to keep in close touch with potential commercial car buyers at all times, thus being able to anticipate their equipment needs and have special body and chassis jobs built.

With the co-operation of the factory, the dealership makes a study of the individual truck buyer's need and endeavors to meet it exactly. One man on the Geghan-Allerton staff acts as an engineer in diagnosing special requirements and preparing the specifications for the factory to work upon.

This engineer spends a full day with each buyer, making a thorough study of the purposes for which the unit is to be used, probable mileage to be covered and the type of road conditions which will be met in operation. With these facts in his possession, he is able to prepare a complete set of specifications.

The Waterbury concern prepares special mailing cards, listing the prices and general data on various truck units, which are sent monthly to a list of 300 owners and prospects. Some literature prepared by the factory is also employed, the two supplementing each other.

The value of consistent personal contact is demonstrated by the fact that Geghan-Allerton has succeeded in selling funeral car equipment to all but two of the undertakers in the entire Waterbury metropolitan area. Every undertaker in the territory is called upon regularly once a month, so that Geghan-Allerton really knows what each undertaker is thinking about in the matter of road equipment at all times.

It is reported that Geghan-Allerton is one of the largest dealers in funeral car equipment in the entire Northeast. This accomplishment has been made possible, Mr. Geghan says, by the consistent contact policy. He added that his concern experiences no difficulty in disposing of used funeral equipment without loss.

The localized advertising used by Geghan-Allerton has the double effect of interesting truck prospects and at the same time pleasing new owners. The customer is "given a break" in these ads through a picture of his equipment and a few lines describing his business.

For instance, Geghan-Allerton sold a refrigerated truck to R. F. Worden & Sons, a dairy and ice cream plant. A photograph of the truck was used in large newspaper space, with a complete description and a "plug" for the Worden business. Copy also stressed the point that the dealership was prepared to furnish specially built jobs to meet any requirement.

From the Worden advertisement a direct sale resulted almost immediately. A Middlebury man, entering the "traveling butcher shop" business, became interested and inquired what Geghan-Allerton could furnish him in the way of a "market on wheels," with complete refrigeration.

The meat dealer purchased a complete refrigerated unit which exactly met his requirements. Another advertisement was run, with copy stressing the point: "Again . . . Studebaker and Auto Meat Markets Lead the Field." Under this caption appeared a photograph of the truck, with the explanation: "The new refrigerated meat truck offers home delivery of quality meat products."

A description of the truck was captioned "What This Truck Is," and next to it, a discussion of the service offered by the owner under "What It Does for You."

The truck was described as follows: "A masterpiece of special body construction, this truck was planned by our experienced truck department. It is built on a Studebaker 2½-ton S. P. A. truck chassis. The body is refrigerated by dry ice, and is a complete meet market on wheels."

The meat dealer's "plug" was as follows: "It delivers fresh meat to your door. The meat is protected in transit by the same excellent refrigeration under which it was shipped from the packers. If you think that your neighborhood would be interested in having the truck call, just dial 3-4913."

The advertisement closed: "Our truck department maintains complete facilities for solving your truck transportation problems. We shall be very pleased to show you where a Studebaker can save you many dollars on your trucking."

Mr. Geghan said that a number of live prospects had been secured from these advertisements, and early sales are looked for.

TRUCK FLEET USES RAILROAD METHODS IN ITS DISPATCHING, ACCOUNTING, TRAFFIC SOLUTION

Central Freightways, Inc., successfully employs railroad methods in the operation of its motor freight fleet. This phase of operation extends to its methods of accounting, dispatching and traffic solution.

The principal stations of Central Freightways, Inc., are located in Newark, N. J., New York city, Albany, Syracuse, Buffalo, Cleveland and Chicago. Branches are located in Rochester, Utica, Amsterdam and Erie, Pa.

"It is our belief," says J. P. Dempsey, vice-president in charge of traffic, "that past dependable daily service and close co-operation between shippers and consignees and the company is the life of our business.

"We maintain stations at all important points on the system, and in the larger cities a general agent is placed in charge of solicitors, who devote their time to developing new business and adjusting problems with shippers and consignees.

"Station agents also closely cooperate with our drivers to see that equipment is in proper shape and that freight is properly loaded without any loss of time.

"Most of the truck and trailer equipment is of steel, with closed trailer bodies, which are 22, 24 and 26 feet in length. Traffic consists of general merchandise, most of which requires closed equipment to protect it from the elements.

"Some open equipment of wood construction is owned by the company, and we also have nine drop-frame wood bodies, 22 feet in length, which are used on certain kinds of merchandise.

"All solicitors and general agents on the system send in daily reports of the solicitation calls made.

"A solicitor in the Buffalo territory may learn of a shipper at New York, who moves considerable traffic from New York to Buffalo. He immediately corresponds with solicitor at New York office, using the solicitor's correspondence form copy.

"When routing is controlled by the consignee, our agents and solicitors secure routing orders from them. A standard bill of lading similar to that used by rail carriers, and, in fact, to all of our forms are similar to rail forms in order not to disrupt the filing departments of the traffic organizations we serve.

"Our waybills, issued in five copies, are originated at stations where freight is accepted for forwarding. The original is called a freight bill; second, consignee's copy; third, delivery receipt; fourth, audit office copy, and fifth, is the station agent's copy.

"When the forwarding station writes their billing, they send the first three copies with the driver. The fourth copy is sent to the general office at Cleveland, and fifth copy is retained by the issuing station as a record for their forwarding waybill.

"All freight forwarded from each station is listed on a loading sheet, shown in the illustration, which is originated in triplicate. The original copy of the loading sheet is sent to the accounting department in Cleveland, the second copy is mailed at the close of the day's business to the destination station, and is considered an abstract received by that station. The third copy is retained by the forwarding station, and is similar to the abstract forwarded as used by rail carriers.

"When a truck reaches the destination station, the road driver immediately turns his bills over to the clerk at the office, who checks the waybills against the waybill references shown on the loading sheet. Waybills are then passed to the freight house, where freight is checked from the truck to the terminal if less than truckload shipment. If it is a solid load, the truck goes direct to the consignee's warehouse and makes delivery.

"All less-truckload freight received at a station is moved to the customer's store or warehouse on our local delivery truck. The station agent lists all waybills covering freight loaded on a delivery truck on a city delivery form. These forms are originated in duplicate. The driver signs for bills and is responsible for money listed thereon, the original form being retained at the station as a check against the city delivery driver's collections.

"If freight checks over, short or damaged at a station, an O. S. & D. report is immediately issued in triplicate. The original is mailed to the general traffic department at Cleveland, the duplicate is sent to the station from which freight originated and the agent retains the triplicate as a record. He follows the general traffic department at Cleveland and the originating station until he obtains something definite as to overage, shortage or damage.

"The station agent makes collection of all freight revenue charged against his particular station. All charges collected are listed on a cash sheet. When preparing bank deposit, deposit slips are made in

(Continued on Page 7)

Automotive Daily News

"Of, By and For the Entire Automotive Industry"

Published Every Day Except Sunday and Monday by
AUTOMOTIVE DAILY NEWS PUBLISHING CORPORATION
350 Hudson St., New York, N. Y.

D. J. Elder, President. H. A. Tarantous, Vice-President. Alexander Johnston, Secretary
Entered as second-class matter August 27, 1925, at the post office at New York, N. Y., under the Act of March 3, 1879.

350 Hudson St., New York, N. Y. Telephone CA nal 6-1000

MEMBER A. B. C.

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Telephone TR afalgar 7-4500

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To Other Countries, One Year, $15.00; two years, $26.00. Single copies 5 cents.

FRIDAY, MAY 6, 1932

ADVERTISING AND BUSINESS HEADQUARTERS

Harry A. Tarantous, Business Manager, 350 Hudson St., New York, N. Y.
George M. Slocum, Manager Detroit Bureau, 427 Fisher Building, Detroit, Mich., phone Trinity 2-3500. Willard R. Cotton, Western Manager, 333 North Michigan Ave., Chicago, Ill., phone Andover 2400. Metz B. Hayes, New England Manager, Little Building, Boston, Mass. Blanchard, Nichols & Coleman, American National Bank Building, San Francisco, Cal.; Lincoln Building, Los Angeles, Cal.; 1037 Henry Building, Seattle, Wash.
Address ALL Advertising and business correspondence to 350 Hudson St., New York city

EDITORIAL DEPARTMENT

350 Hudson St., New York, N. Y. Telephone CA nal 6-1000.

Alexander Johnston, Editor. William C. Callahan, News Editor
Statistical Department (registrations and specifications), P. J. Robas, statistician. Engineering Department, A Benson Carleton, technical editor. Merchandising Department, Charles S. Zack, editor. Art Department, John Bauerfeld, director.
Detroit Bureau, Chris Sinsabaugh, editor, 427-8 Fisher Building, Detroit, Mich. Telephone Trinity 2-3500. Contributing editor, John C. Wetmore.

Advertising Delivered Prices

ONE of the most important matters before the automobile dealers of America at the present time is whether or not manufacturers shall continue advertising f. o. b. prices on their cars or shall change to delivered prices. This matter is coming up for earnest consideration of the sales managers' committee of the N. A. C. C. within the next few weeks.

Those who believe that the change would be beneficial cite the fact that delivered prices are misleading to the consumer and cause revulsion of feeling when the dealers names them. The situation is this: National advertising will tell the public that the Boop-a-Doop eight lists at $685, f. o. b. Detroit. The consumer looks through the pages of a magazine or newspaper and sees the car. It is attractive and Mrs. Consumer looking over his shoulder perhaps remarks, "That is the car I'd like to have." If she does, the chances are that the Boop-a-Doop is the car Mr. Consumer is going to buy.

But the said Mr. Consumer goes to the salesroom, his mind made up for him by the proper functionary to that end, ready to pay $685 for the Boop-a-Doop. He examines the car, is delighted; takes a ride and is even more pleased and then gets the sad news. The salesman tells him that the delivered price of the Boop-a-Doop is not $685 but $845. Perhaps this latter price is just beyond the limit of Mr. Consumer's budget, or perhaps he just has a human suspicion that there must be a "gyp" somewhere in this sudden addition to the advertised price.

Some suggestions have already been made for bettering this condition. One of them is that the nationally advertised price include everything except freight and a handling charge. The car under this method would be advertised carrying every piece of needed equipment. There would be no extras added to the national list, except the freight which varies in different places. Even the handling charge could be standardized. It could be set at $20 or $30 or whatever is necessary to put the vehicle in the consumer's hands ready for the road. Also the national advertising might carry a scale of freight charges for different districts.

In this way the consumer could tell to the last dollar exactly what the car would cost him delivered at his door and not at the loading platform in Detroit or some other point of manufacture.

This question is worth the earnest consideration of every dealer in the country. Automotive Daily News would like to have YOUR opinion in the matter. Write us today whether you think a change from advertising delivered prices would be advantageous and tell us why.

SOME years ago the Southern Pacific Railroad found that the motor truck was cutting in on its revenues. The menace grew, year after year. The Southern Pacific, however, did not appeal to Congress to wipe motor trucks off the roads by levying prohibitive taxes on this form of transportation. Instead the railway went into the truck business on a comprehensive scale.

The Southern Pacific has just given out some figures covering the freight moved by its motor trucks in Oregon, California and Arizona during the year 1931. The total volume showed an increase of 438 per cent. over that of 1930. The railway is successfully meeting the motor truck menace by using that modern method of transportation wherever it gives indications of proving profitable.

Would it be mean to hold this example up before those railways who chose the alternate method of trying to meet truck competition by trying to have it taxed and regulated out of existence? At any rate we recommend to the careful study of all railways which are feeling the pressure of motor truck competition.

New methods of transportation, offering positive advantages in flexibility and economy under certain conditions, seldom can be driven out of existence after the public once has had a chance to prove them.

In This Corner . . . .

Opinions, suggestions, complaints, criticisms, grievances or what have you. Open to every one to say anything, anyhow, any time. The communications printed in this department represent the ideas and opinions of our readers. They are not necessarily ours. If you have something to say on any phase of automotive activity, wholesale, retail or abusive, let us hear from you and we will tell the world.

Improving School System With Motor Equipment

Automotive Daily News: I have just read Mr. Ward Mohun's article in your April 23 issue, wherein he states that the retail demand for commercial vehicles and trucks really represents a more accurate barometer of what one may expect in a betterment of business in general than does the sale of passenger cars.

I heartily agree with Mr. Mohun in this statement, and also wish to state that the majority of truck chassis manufacturers are overlooking one of their largest potential sales of truck chassis.

One of the Western state tax commissions met several weeks ago, and was seriously considering the ever-growing cost of the school system in that state. They investigated costs of school operations in the other forty-seven states of the United States. It was found that where states had practically abolished all one-room school houses, and had adopted the centralized school system, the cost of school operation was, in the majority of cases, considerably lower than in their state. In checking the school cost per pupil in one of the outstanding states in the East, this tax commission found that the cost per pupil was approximately 30 per cent. lower than in their own state.

Here is something for the large truck manufacturers to give their serious consideration, and I believe it should be called to their attention. As stated above, there are only 47,000 school buses now being operated, and this could be built up to 125,000, creating a potential sale for approximately 78,000 truck chassis and school bus bodies, and then a replacement of approximately 12,500 per year after it is built up to the point mentioned above.

Of the 47,000 school buses now being operated, at least 40 per cent. of them are seven years or more older. Both bodies and chassis are obsolete and are unfit to transport school children, as the majority of them are makeshift affairs, on lengthened passenger car chassis, with the old two-wheel brake arrangement on the chassis.

Centralization of schools can be brought about more quickly by the truck manufacturers and body companies planning an intelligent advertising campaign—advertising in publications that reach the rural sections.

J. H. SHIELDS, Sales Manager,
Superior Body Company, Lima, O.

MORIARTY TO JOIN NEW DURANT FIRM

San Francisco, Cal., May 5.—George H. Moriarty, former vice-president and general manager Durant Motor Company of California, returns to New York to head new enterprises that W. C. Durant is now forming.

COMING EVENTS

MAY

1- 8—**Penzan, Poland.** International Fair.
2- 6—**Philadelphia, Pa.** American Society of Mechanical Engineers management division meeting.
4- 6—**Honolulu, Hawaii.** National Foreign Trade Council.
4- 7—**Dublin, Ireland.** Commercial Car Show.
7-11—**Cleveland, O.** American Society for Testing Materials, meeting.
7-16—**Budapest, Hungary.** International Fair.
12-13—**Cleveland, O.** American Gear Manufacturers' Association, meeting.
14-15—**Atlantic City, N. J.** Annual convention New Jersey Automotive Trade Association. Hotel Jefferson.
16-20—**San Francisco, Cal.** United States Chamber of Commerce, annual meeting.
19-20—**Chicago, Ill.** National Battery Manufacturers Association meeting. Hotel Sherman.
23-28—**Chicago, Ill.** Radio Manufacturers Association, meeting, Hotel Sherman.

JUNE

Paris, France.—International Automobile Manufacturers Association sixth annual Motor Transport Congress.
1- 3—**Tulsa, Okla.** American Petroleum Institute, mid-year meeting, Mayo Hotel.
8-11—**State College, Pa.** American Society of Mechanical Engineers, National Oil and Gas Meeting.
12-17—**White Sulphur Springs, W. Va.** Society of Automotive Engineers, summer meeting.
20-24—**Atlantic City, N. J.** American Society for Testing Materials, annual meeting, Chalfonte-Haddon Hall.

JULY

3—**France.** Grand Prix Automobile Race.
5- 9—**Southampton, England.** Commercial Car Show.
9-10—**Belgium.** Grand Prix Automobile Race.
17—**Germany.** Grand Prix Automobile Race.
20-22—**Llandrindod, Wales.** Commercial Car Show.

OCTOBER

3- 7—**Washington, D. C.** National Safety Council, meeting.
3- 7—**Buffalo, N. Y.** National Metal Exposition, 174th Regiment Armory. W. H. Eisenman, 7016 Euclid Ave., Cleveland, director.
3- 7—**Buffalo, N. Y.** National Metal Congress. Sponsored by American Society for Steel Treating, with cooperation of American Society of Mechanical Engineers, Institute of Metals and Iron and Steel Divisions of American Institute of Mining and Metallurgical Engineers, American Welding Society, Wire Association.
13-22—**London, England.** Olympia Show.

EATON PRODUCTS NAMES CLARK TO NEW POST

Cleveland, O., May 5.—Eaton Products, Inc., announce the appointment of Francis W. Clark as a special sales representative on Eaton Special Lubricants. Mr. Clark has had many years experience in the automotive lubrication field, and has had an intimate contact with jobbers throughout the country as a representative of the R. M. Hollingshead Company.

Eaton has just recently announced its line of Eaton Special Lubricants to be sold through jobbing channels. The line includes gear lubricants, both lead base and syncro-mesh, free wheeling lubricant, water pump grease, high pressure chassis lubricant, Tryon and threaded shackle lubricant, Break-In oil, steering gear grease, universal joint grease, penetrating graphite oil and front wheel bearing grease. These will be suplied to the wholesale trade through the Eaton factory branches located in Atlanta, Boston, Chicago, Cleveland, Dallas, Denver, Kansas City and Philadelphia.

TO RETAIN CONTROLCLAUSE IN COUZENS BUS BILL

Washington, May 5.—The Senate Interstate Commerce Committee voted to retain in the Couzens bus bill a clause providing for control of interstate trucks by a permit system.

The committee also voted to eliminate a provision requiring two drivers on buses carrying more than twenty passengers.

CAN YOU STOP ?

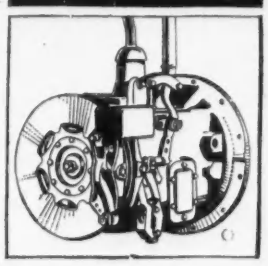
Safe high speed operation demands a powerful reserve brake . . . an emergency brake that can be depended upon should service brakes prove inadequate for any reason . . . an emergency brake that will alone handle the load should service brakes fail entirely.

Truck and bus manufacturers realize this need more and more each year, due to higher speeds of all vehicles and greater road congestions. That is why leading makes of trucks and busses come equipped with Tru-Stop Emergency Brakes . . . why practically every other manufacturer includes Tru-Stop Brakes as optional equipment . . . and why every standard-make transmission has provision for mounting Tru-Stop Brakes.

Specify Tru-Stop Emergency Brakes for your next trucks and busses.

AMERICAN CABLE CO., Inc.
Automotive Division
BRIDGEPORT, CONNECTICUT
3-111 General Motors Building,
Detroit, Michigan

An Associate Company of the American Chain Company, Inc.



Two or four fan-shaped brake shoes compress against a forged steel air ventilated disc.

The Tru-Stop Brake is self-equalizing. Natural lining wear is quickly and easily taken up. Relining is simply a matter of replacing the brake shoes. Adjustment or replacement if necessary, can be made by any driver, any time.

TRU-STOP
A REAL EMERGENCY BRAKE

WEEKLY BUSINESS INDICATORS

SURVEY OF CURRENT BUSINESS

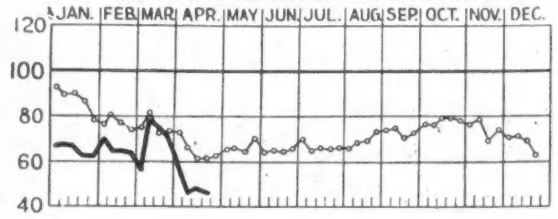
UNITED STATES DEPARTMENT OF COMMERCE

DATA PLOTTED, WHERE AVAILABLE FOR WEEK ENDING APRIL 30, 1932

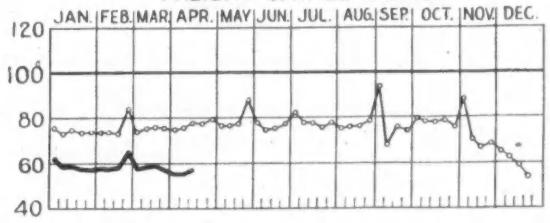
WEEKLY AVERAGE, 1923-1925, INCLUSIVE = 100

LEGEND
1931
1932

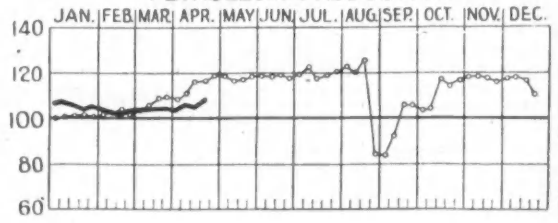
BITUMINOUS COAL PRODUCTION ⊙



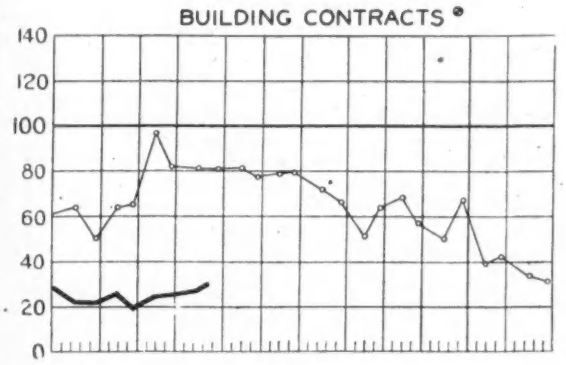
FREIGHT CAR LOADINGS ⊙



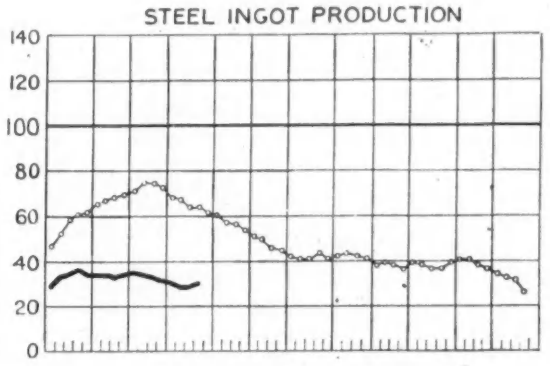
PETROLEUM PRODUCTION ⊙



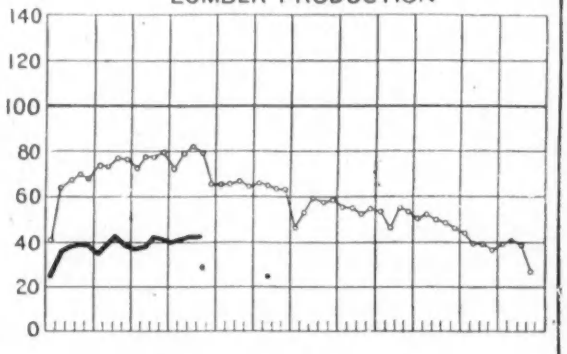
BUILDING CONTRACTS ⊙



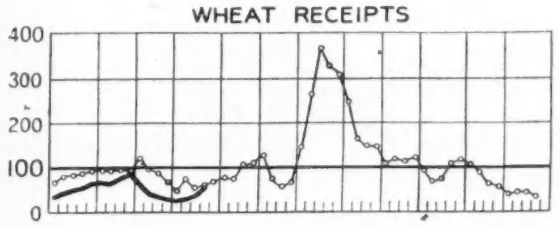
STEEL INGOT PRODUCTION



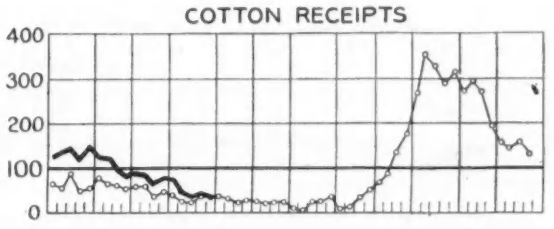
LUMBER PRODUCTION *



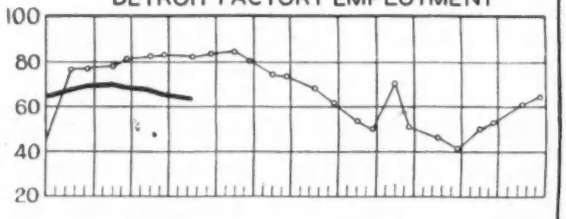
WHEAT RECEIPTS



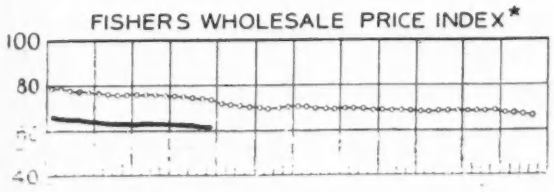
COTTON RECEIPTS



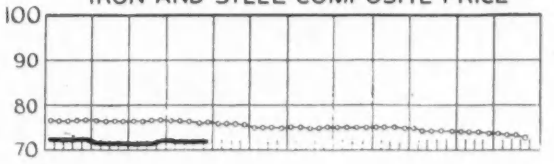
DETROIT FACTORY EMPLOYMENT



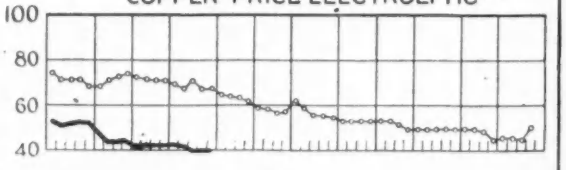
FISHER'S WHOLESALE PRICE INDEX *



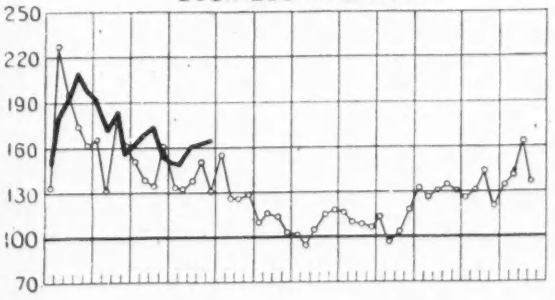
IRON AND STEEL COMPOSITE PRICE ⊙



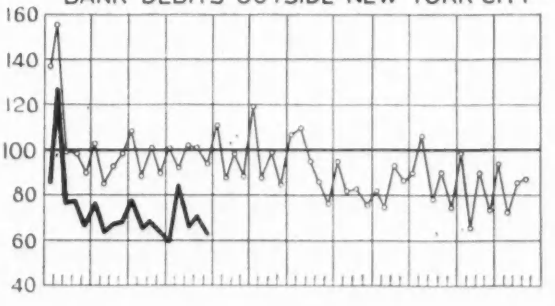
COPPER PRICE ELECTROLYTIC ⊙



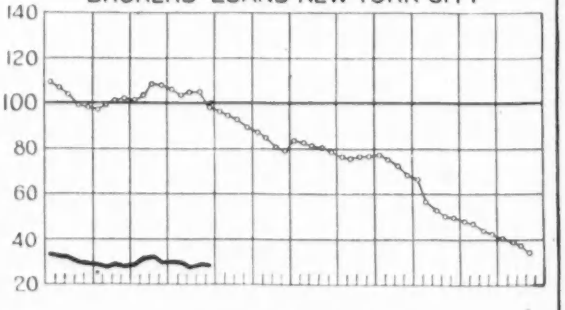
BUSINESS FAILURES ‡



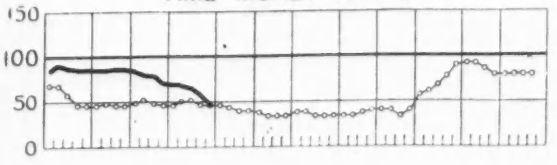
BANK DEBITS OUTSIDE NEW YORK CITY ⊙



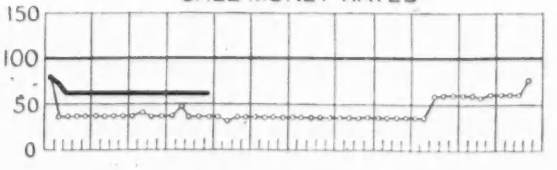
BROKERS' LOANS NEW YORK CITY



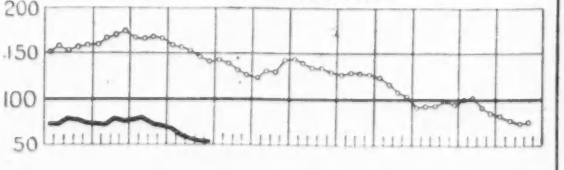
TIME MONEY RATES ⊙



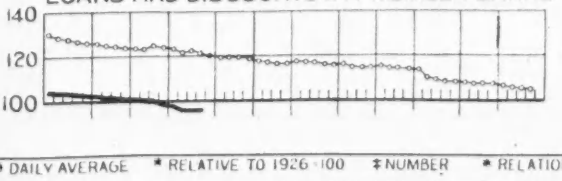
CALL-MONEY RATES ⊙



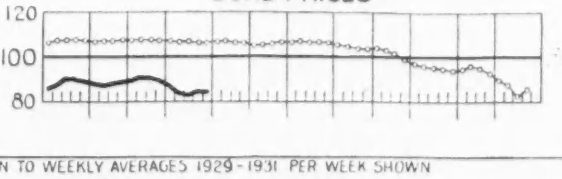
STOCK PRICES ⊙



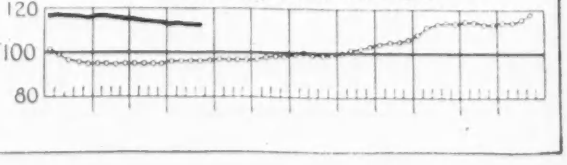
LOANS AND DISCOUNTS F.R. MEMBER BANKS



BOND PRICES ⊙



MONEY IN CIRCULATION ⊙



⊙ DAILY AVERAGE * RELATIVE TO 1926 = 100 ‡ NUMBER ⁕ RELATION TO WEEKLY AVERAGES 1929-1931 PER WEEK SHOWN

VIRGINIA INSURANCE RATE HEARING JUNE 14

Richmond, Va., May 5 (UTPS).—Hearing on the proposed increases of automobile theft and fire insurance rates, as revised by the Virginia Insurance Rating Bureau, will be held before the State Corporation Commission June 14, it has been announced.

The new schedule contains a number of increases in the fire insurance rates. The bureau's announcement of the proposed increases says that the "special additional coverage indorsement premium of $4.50 per car is changed to $6.50 on cars of list price between $2,000 and $4,999, and to $9 on cars over $5,000.

KENTUCKY BUYS NEW MOTOR EQUIPMENT

Louisville, May 5.—The Kentucky State Highway Commission has awarded contracts to various state automobile concerns for a total of 55 passenger sedans at a total of slightly more than $35,000, all cars purchased having to come under the $800 level, under a new state law which forbids any state departments to own cars, other than the highway department, and places the maximum at the $800 level for passenger cars in that department.

VIRGINIA GAS TAX COLLECTIONS INCREASE

Richmond, Va., May 5.—The State Motor Vehicle Department reports an increase of $248,286.35 in Virginia gasoline tax collections for the first three months of 1932 over the corresponding period last year.

New Dealer Appointments By States and Makes

ALABAMA

Rockne — Segrest-Milwee Motor Company, Montgomery.

Willys-Overland—Tennessee Valley Motor Company, Inc., Florence.

ARIZONA

Rockne—J. H. Rencher, Buckeye.

CALIFORNIA

Rockne—Glen A. Peck, Fullerton; Ben C. Moulden, Hemet; George Christensen, Lynwood; Ridenour Auto Sales, Richmond; Fallbrook Garage, Fallbrook; Rufus M. Hook, Perris; Hans Madsen, Ripon, Forget-Me-Not Garage, Georgetown; G. E. Stanley, Gold Run; Charles T. Remmel, Ukiah; Napa Motor Sales Company, Calistoga; George C. Johnson, Orange; Ray R. DeVore, Torrance; Edward Loudenclos, Ventura; G. G. Bundy, Culver City; S. W. Knowles, Pittsburg.

Studebaker — Robinson-Marshall Motors Company, Coalinga, Ochi Brothers, Fowler; S. W. Knowles, Concord; Lafayette Garage, Lafayette; A. A. McGinsey, Martinez; George Storey, Forest Hill; Penryn Garage, Penryn; Tiburon Garage, Tiburon; Danielson & Kulgren, Kingsburg; T. E. Stanley, Gold Run; J. H. Veteran, Isleton; W. W. White & Sons, Newcastle; S. E. Crockett, Madison; S. E. Crockett, Winters.

COLORADO

Nash—J. & R. Nash Motor Company, Fort Morgan.

Rockne—Nelson Motor Company, Colorado Springs; Commercial Motor Company, Gunnison; J. R. Lafrenz Garage, Wheat Ridge.

CONNECTICUT

Rockne — Norwich Auto Sales, Norwich; Star Garage, Plainfield; Danielson Motor Sales, Danielson; Capital Garage, Willimantic; Charles H. Brewster, Inc., Middletown.

DELAWARE

Rockne—Dennison Motor Company, Newark.

DISTRICT OF COLUMBIA

Nash—Neumeyer Motor Company, Inc., Washington.

FLORIDA

Rockne—B. W. Brown Motor Company, Tallahassee.

GEORGIA

Rockne — Thomas W. Heard, Rome; James E. Rainery, Covington.

IDAHO

Rockne—Keller Motor Company, Weiser; Brooks Motor Company, Caldwell.

ILLINOIS

Nash—Pinkerton Motor Company, Peoria.

Rockne—Trainor Motors, Inc., Chicago; Charles Williams, Pekin; Century Motor Sales, Chicago; J. W. Stockhowe Garage, Carmi; E. N. Bognor, Henry; Pronger Auto Sales, Inc., Blue Island; G. A. Mattice, Chillicothe; A. R. Smith, Altamont; Royal Sales and Service, Chicago; Hanse, Belvidere; Mayor Motor Sales, Chicago; Landwer Motor Sales, Lake Zurich; Murphy Brothers, Robinson; J. B. Belsey & Son, Lacon; Perry County Auto Sales, Duquoin; Fred Nagel Company, Des Plaines; K. H. Motor Sales, Harvey; Schroeder Sales Company, Edwardsville; Schroeder Motor Company, Salem.

Studebaker—Auto Service Company, Ottawa; Kruml Motor Sales, Cicero.

Willys-Overland—C. M. McDonald, Evanston.

INDIANA

Rockne—Gilbert Garage, Hartford City; Coleman Motor Company, Madison; George D. Long & C. C. Longfellow, Plymouth; Merkel Motor Company, Evansville; Peconge Motor Sales, Rochester; Hanson Motor Company, Bloomington.

Studebaker—Clark & Rile, Bedford.

Willys-Overland — Jarboe Motor Sales, Tell City; Robert B. Huffard, Greenfield; Sheets & Seidensticker, Indianapolis.

IOWA

Rockne—Wilson's Garage, Hawarden; C. M. Lauer, Mount Pleasant; E. J. Knipschield, Charles City; Clingman Motor Company, Ottumwa; L. W. Keen, Stuart.

KANSAS

Rockne — Brooks-Harris Motor Company, Pratt; Charles S. Cook, Concordia; J. G. Bachelor, Belleville.

KENTUCKY

Nash—McCarty & Ricketts, Lancaster.

Rockne — Pedigo Motor Sales, Bowling Green; Montgomery Garage, Mount Sterling; Main Street Garage, Carlisle.

Willys-Overland — Bryant Motor Company, Irvine.

MAINE

Rockne—Ouellette Motors, Inc., Brunswick.

MARYLAND

Rockne—Crowl's Garage, Boonsboro; Central Garage, Hancock; E. R. McMullen & Sons, Perryville.

Studebaker—Scott Wilson & Son, Rising Sun.

MASSACHUSETTS

Nash—Everett H. Corsan, Hyannis.

Rockne—Zandition Motor Company, Dorchester; Harris Garage, Franklin; Edward A. Hunt, Wellesley; Peoples Garage, Natick; West Concord Garage, West Concord; The Cheshire Garage, Cheshire; Arthur R. Haunes, Canton; Charles L. Haggerty, Winchester; Foxboro Motors Company, Foxboro; Jewelry Center Motor Car Company, Attleboro.

MICHIGAN

Rockne—Ray C. Gorton, Cassopolis; Carl Bartlett, Lawton; Schroeder & Benson, Inc., Saginaw; Gateway City Garage, St. Ignace; Dearborn Motor Sales, Dearborn.

Willys-Overland—Charles Hoehn, Allegan; K. & R. Motor Company, Benton Harbor; G. H. Kooiker, Holland.

Cumulative New Commercial Car Registration Statistics, April, 1932

States	Autocar	Brockway	Chevrolet	Diamond-T	Dodge	Federal	Ford	G. M. C.	Indiana	International	La France Republic	Mack	Pierce-Arrow	Reo	Sterling	Stewart	Studebaker	White	Willys-Overland	Miscellaneous	Totals	States
Illinois	1		281	28	37	3	194	35	1	100	2	27		7	4	1	14	10	7	29	781	Illinois
Illinois, 1931	2	10	513	33	77	16	816	23	*	121	1	10		7	8	3	32	1	23	79	1775	Illinois, 1931

*Combined with Brockway.

Cumulative New Commercial Car Registration Statistics, March, 1932

Returns for today: WYOMING.

Figures in this table are from R. L. Polk & Co. of Detroit, with the exception of Illinois, which are supplied by the Robinson Advertising Service, Springfield, Ill., and New Jersey, which are furnished by the New Jersey Motor List Co., New Car Division, Trenton, N. J. Metropolitan district figures compiled by Sherlock & Arnold are included in New York state total. Readers desiring county, city or town lists, or lists of owners in any given section, may obtain these by addressing any of these three companies. Some of this data has been published previously, but it is given here complete for the convenience of our subscribers. Commercial car figures do not include busses.

In this table, 45 states and the District of Columbia. **Comparative figures for March, 1931, will be found on Page 7.**

States	Autocar	Brockway	Chevrolet	Diamond-T	Dodge	Federal	Ford	G. M. C.	Indiana	International	La France Republic	Mack	Pierce-Arrow	Reo	Sterling	Stewart	Studebaker	White	Willys-Overland	Miscellaneous	Totals	States
Alabama			89		8	1	32	5		15							3		1		154	Alabama
Arizona			30		3		13			5										1	52	Arizona
Arkansas			44		1		29	1		8		1									84	Arkansas
California	6		311	2	46	2	368	31		47	6	1		40	2		12	9		83	966	California
Connecticut	3		100	3	14	6	49	9		26	1	4	1	12			4	3	3	2	240	Connecticut
Delaware		1	24		1		17	3		8				2							56	Delaware
Florida			92		5	1	124	4	1	21	1	1		3			2	1	1	3	260	Florida
Idaho			26				10			5											41	Idaho
Illinois	1		308	24	39	1	177	35		118	1	3		19	1	1	14	2	9	27	780	Illinois
Indiana	1		191		16	1	177	27	5	60	4			5		4	20	1	9	3	524	Indiana
Iowa			194	4	10		121			53		3		7			8	2	6	12	420	Iowa
Kentucky			51		5		48	3	3	25		2		3		1	2		2	2	147	Kentucky
Louisiana			49	1	5		38	3		20		1		1			1	1			120	Louisiana
Maine			88		12		32	7		16				4	1		2				162	Maine
Maryland	3	3	125		19	6	42	7		27	1	6		5			3	2		7	256	Maryland
Mass'setts	11	3	216	3	36	13	211	43		51		12		18	2	10	8	19	1	5	662	Mass'setts
Michigan			208	6	60	10	180	18	1	29				18			17	1	6	16	570	Michigan
Minnesota			228	7	40	5	152	11		81		6		14	1		12	7	6	1	571	Minnesota
Mississippi			62		4		48			16											130	Mississippi
Missouri	3		616	22	50	7	376	37	7	150		5		24	8	1	17	4	10	15	1352	Missouri
Montana			61		11	2	81	2	1	29				9			1	1	2	1	201	Montana
Nebraska			87	3	6		67	7		30				2			3		5	2	212	Nebraska
Nevada			18		1	1	4	2		3										1	30	Nevada
New Hamp.			44	6	6	1	20	4		7	1	1		2		3	2		1	1	99	New Hamp.
New Jersey	9	6	260	33	38	4	119	22		44	1	9	1	17	2	6	5	14	2	30	622	New Jersey
New Mexico			15		1		17	2		3											38	New Mexico
New York	105	33	506	30	100	12	387	74		138		45		36	5	52	23	447	16	60	2069	New York
No. Carolina			171	2	8		87	4		11	1	1		2				9		25	321	No. Carolina
North Dakota			25		4		7	1		18				2					2		59	Nor. Dakota
Ohio	1		225	2	48	2	195	28	1	50	1	4		14		6	6	9	7	45	644	Ohio
Oklahoma			72		5		65	2		14				1						2	161	Oklahoma
Oregon			59		6		62	8		9					3			2		1	150	Oregon
Pennsylvania	14	10	508	13	90	5	415	43		151	6	27		49	8	19	18	15	26	36	1453	Pennsylvania
Rhode Island		1	40	1	2	4	26	4		9		2	1	6			1	1	1	2	101	Rhode Island
So. Carolina			47		8		27	1		2								1		1	87	S. Carolina
South Dakota			33	2	4		9	17		17		1					3		4		90	S. Dakota
Tennessee			60		6	3	27	3	1	17				1				1	3	1	123	Tennessee
Texas			296	1	16		204	10	1	56		1		6			3	5		10	609	Texas
Utah			51		4		22	4		11		2					1				95	Utah
Vermont			38	3	2		18	2		13				2					3	1	82	Vermont
Virginia	5		183		12	1	100	7		12	1			6			3			4	334	Virginia
Washington			60	3	12	1	83	8		18		1		1			5	5		14	211	Washington
West Virginia	1		75		8	1	32	5		13	2						4		2	4	147	W. Virginia
Wisconsin			230	10	20	1	135	9		46	1	1		8	3	2	11	1	7	8	493	Wisconsin
Wyoming			38		4		13	3		4				2			1	1			66	Wyoming
Dist. of Col.	2		62	3	5	1	38	9		38										11	169	Dist. of Col.
Totals	165	57	6316	184	801	92	4504	525	21	1544	28	140	3	341	36	105	215	564	135	437	16213	Totals

TRUCK FLEET USES RAILROAD METHODS IN ITS OPERATION

(Continued from Page 3)

triplicate, and on the reverse side thereof a list of all the freight bills covering money deposited is shown. The original deposit slip is retained by the bank receiving teller, the duplicate is attached to the cash sheet and sent to the accounting department at Cleveland and the triplicate is attached to his own cash report as a record.

"A station cannot take relief for revenue unless they obtain authority from the accounting department at Cleveland, and when they request such authority it is listed on a correction form. This form is originated in triplicate, the original and duplicate sent to the accounting department, which, if approved, returns the duplicate to the station making the request.

"Claims are only honored when prepared and presented on a standard claim form similar to that recommended by the Interstate Commerce Commission when filing claims against rail carriers.

"All trucks departing from a pivot point move on what we call a 'running waybill.' Running waybills show the actual time of departure, amount of tonnage and revenue carried, and on the reverse side drivers show the amount of gas and oil consumed and any other expeditures they make in transit.

"Tractors are all equipped with sleeping cabs and are manned by two capable drivers, who are not permitted to operate on our line until they make at least two complete round trips under the supervision of an instructor.

"A truck departing from Cleveland destined to New York, must sign a register, showing arrival and departure at all important stations, such as Buffalo, N. Y., Albany, N. Y., and New York city.

"We have a set schedule of the number of hours a truck should require for making important stations, and drivers who fail to maintain schedule must give a complete report to the first station at which they arrive. This information is shown in the running waybill, and if it is due to faulty operation, corrective measures are immediately adopted.

"All rates quoted by the company are covered by regular tariff authority, the tariffs being prepared and filed in accordance with the laws of the respective states.

"Each morning, at 8 o'clock, every station in the system wires to the general traffic department at Cleveland, advising time and direction of all trucks passing their station during the night. A similar report is wired the general traffic department at 4 p. m each day. Any shippers wishing to secure definite information as to the whereabouts of their consignments, can, by communicating with the traffic department, ascertain the location of truck carrying their freight."

Experience is continually pointing out the low operating expense of Wisconsin Axles.

WISCONSIN AXLES

WISCONSIN AXLE CO.

OSHKOSH WISCONSIN

BAY STATE FORD PLANT ASSEMBLES NEW MODELS

Boston, May 5.—The Ford plant at Somerville, Mass., is now working six days a week ten hours a day, with double shifts in some departments, assembling both four and eight cylinder passenger cars. These machines are for New England territory and will constitute beginning of deliveries to owners of cars assembled locally.

The schedule of operations calls for an increase in output through this month and maintained high production rate in June and July. Until now dealers in metropolitan Boston have had only display cars.

CLASSIFIED ADVERTISEMENTS IN THE AUTOMOTIVE DAILY NEWS BRING RESULTS

Willys Predicts Favorable Economic Turn Very Soon

(Continued from Page 1)

far, and the pessimists of today are as far wrong as were the optimists of three years ago.

"We are laying plans at Willys-Overland which I am confident will make it a greater company than it ever has been. The loyalty and cooperation of our dealers, our stockholders and our factory organization is a source of great pride to me. On this foundation I am sure Willys-Overland is going forward.

"We are entering a new economic era with changed buying conditions, changed standards and an entirely different set of values. The organization that can correctly gauge these conditions and meet them on sound, economic lines has ahead of it a long period of steadily increasing prosperity.

"Anyone who makes a tour of America today having in mind especially the conditions in Europe must be impressed with the fact that our whole economic life is built around our personal transportation system. We are a nation on wheels. The automobile must play a great part in our economic life, particularly as we spread out more and more into better living conditions outside of great cities. There is promise of a substantial future for those companies with soundly planned policies, and I am confident that Willys-Overland leadership will be as promient as it has been during the past twenty-five years."

Sir William Letts, managing direcor of Willys-Overland Crossley of Manchester, England, who accompanied Mr. Willys on his trip to the United States and returned with him, expressed his confidence in the progress of British recovery.

"Common sense England and America will lead the world back to prosperity," he said.

RITTER MADE SALES MANAGER OF NORMA-HOFFMAN CORP.

Stamford, Conn., May 5.—H. J. Ritter, assistant secretary of Norma-Hoffman Bearings Corporation, has also been made sales manager of the organization.

To his new duties he brings the experience of years as sales engineer, and, later, as manager of the New York sales office, for the corporation.

YEARS OF PERFORMANCE PROVE WHAT BROCKWAY TRUCKS WILL DO

For more than two score years—with thousands of owners—BROCKWAY Trucks have proved what they will do—demonstrated their ability, economy and lasting qualities in every line of business. What BROCKWAY Trucks are doing for others they will do for you.

BROCKWAY MOTOR TRUCK CORPORATION

Main Office and Factory

CORTLAND - - NEW YORK

Cumulative New Commercial Car Registration Statistics, March, 1931

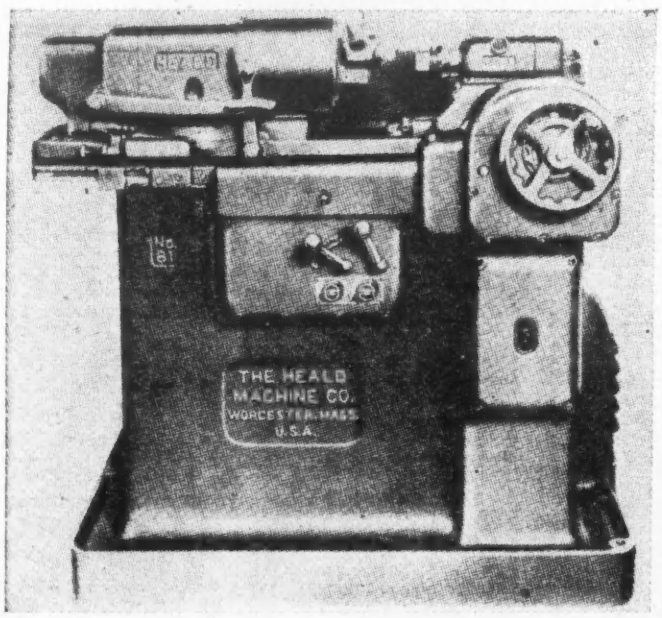
This table is repeated for comparative purposes only. Figures for March, 1932, will be found on Page 6.

States	Autocar	Brockway	Chevrolet	Diamond-T	Dodge	Federal	Ford	G. M. C.	Indiana	International	La France Republic	Mack	Pierce-Arrow	Reo	Sterling	Stewart	Studebaker	White	Willys-Overland	Miscellaneous	Totals	States
Alabama, 1931			139			1	123	1		10		1		1					2		278	Ala., 1931
Arizona, '31			44		2		92	3		8				1			3				153	Arizona, 31
Arkansas, 1931			80		8		136	1		10								1			236	Ark., 1931
California, '31	5		406	2	97	8	1309	29		43	1	9	1	32	17	4	23	13	14	82	2095	Calif., 1931
Conn., 1931	3	2	117	5	29	4	222	5		24	2	19	1	11		5	9	5	4	2	469	Conn.
Del., 1931	1		36		2		53	2		9		2		2			1				108	Del., 1931
Florida, 1931		2	125		11	2	217	4		11		2					1	4		2	381	Florida, 1931
Idaho, 1931			28		5		87	2		7	1			2					6	1	139	Idaho, 1931
Illinois, 1931	3	6	470	23	63	9	655	28		130	1	3		12	7		22	7	16	47	1502	Illinois, 1931
Indiana, 1931		5	417	2	52	2	450	14		95	2			4		9	13	3	18	9	1095	Indiana, '31
Iowa, 1931		1	336	4	31		334	2		79		6		9			13	1	6	7	829	Iowa, 1931
Kentucky, '31			104	1	18	1	142	8		21		11		3			6	1	1	3	320	Kentucky, '31
Louisiana, '31			120		4		170	3		41		5						4	1	1	349	La., 1931
Maine, '31			158		19		244	1		14				5		1	7	1			450	Maine, '31
Maryland, 1931	12		150	6	15	5	192	7		29		8		5		1	4	2	6	8	450	Maryland, '31
Mass., 1931	20	11	239	1	69	7	752	35		59		12		24	7	6	10	9	4	20	1285	Mass., 1931
Michigan, '31			265	2	39	8	625	12		47	5	3		13		2	4	5	6	17	1053	Mich., 1931
Minnesota, '31			437	7	58	3	527	14		104	2	1		16			20	4	25	12	1230	Minn., 1931
Mississippi, '31		1	86		2		77	1		12							1				180	Miss., 1931
Missouri, 1931	2	9	655	29	77	7	609	22		111	3	6	1	10	4	1	15	3	11	20	1595	Mo., 1931
Montana, 1931			78		8		76	1		28		2		4			4	2	4	2	209	Mont., 1931
Nebraska, 1931			137		25		211	7		32		2		1			8	2	6	5	436	Neb., 1931
Nevada, 1931		1	11		2		52	1		3							1	1		3	75	Nevada, '31
N. Hamp., '31		1	86	1	8		103	2		6		3		6		5	3				224	N. H., 1931
N. Jersey, '31	8	7	283	9	54	5	546	30		42	2	14		7	2	4	13	15	7	34	1082	N. Jer., 1931
N. Mex., 1931			29	2	4		62	1		11				1						1	111	N. Mex., '31
New York, '31	28	55	774	29	177	15	1526	62		181	3	109	2	36	8	47	37	42	22	120	3273	N. Y., 1931
No. Ca'lina, '31		1	219		23		247	7		19		1		1				4	2	9	533	N. Ca'lina, '31
Nor. Dak., '31		3	48	1	5		47	2		28							2		2		138	Nor. Dak., '31
Ohio, 1931	4	11	319		48	6	557	20		96		7		14	6	14	19	8	28	37	1194	Ohio, 1931
Oklahoma, '31			116	2	16	2	176	3		26		1					1	3	3	1	350	Okla., 1931
Oregon, 1931			48		8	2	120	2		12		8		3	2		3	2	1	7	218	Oregon, 1931
Penn., 1931	25	17	542	2	145	13	960	27		108	6	35	2	28	2	15	22	24	24	28	2025	Penn., 1931
Rh. Isle, 1931	2	4	30	1	14	7	112	4		2		1		10			6		1	1	195	Rh. Isle., '31
So. Car., 1931			103		14		112	1		5				2				1		5	243	So. Car., '31
S. Dakota, '31			65	1	9		59	3		26		2		2			9			1	177	S. Dak., 1931
Tennessee, '31		2	90		8		57	2		12		1		1			2				175	Tenn., '31
Texas, '31			540		37	6	640	7		150	1	3		5		1	11	15	3	23	1442	Texas, '31
Utah, 1931			77		10		124	9		7		4	1	3			4	2	1	3	245	Utah, 1931
Vermont, 1931			39		7		43			7				3					3		102	Vermont, '31
Virginia, 1931	3	5	215		21		242	12		33	3	2				1	2	11	2	20	572	Virginia, '31
Wash., 1931			100		27	4	254	5		17		2		4			13	2		19	447	Wash., 1931
West Va., 1931			77	6	15		109	6		21							7	1	5	1	248	West Va., '31
Wisconsin, '31		2	341	5	26	4	433	17		56				13	2	3	19	2	30	20	973	Wis., 1931
Wyo., 1931			46		5		61	2		10				4			3	2	4	1	138	Wyo., 1931
D. of C., 1931	3		34	1	2		93	4		11	1	1		1			2	1		3	157	D. of C., 1931
Totals	119	146	8859	142	1319	121	14038	431	*	1813	33	286	8	299	57	119	343	203	268	575	29179	Totals

Combined report on Brockway-Indiana.

Production--Engineering--Factory

New Heald Machine for Grinding Small Parts



The Heald Machine Company, Worcester, Mass., is bringing out a new machine for grinding small parts. The machine is completely automatic except for the functions of loading, unloading and starting. It can be adjusted to size work sizematically or gaugematically, or for a combination of the two. This machine is known as the model 81 and it follows in general the lines of the No. 72, but there is a difference in that the workhead and work reciprocate with the main table instead of the wheelhead and wheel doing it.

This allows the machine to be driven by a single standard end motor. It allows more rigid support of the wheelhead and higher operating speeds and also permits the cross slide and control box to be in fixed relationship with each other, thus allowing all mechanical controls for sizing.

In this new machine particular attention has been given to guarding and inclosing the units, mechanisms and belts. The guards which must be removed in making minor adjustments or for servicing are held by springs so that they can be taken off without using tools. The work is carefully guarded against splash and leakage of the coolant and the cross slide feeding mechanism is inclosed and runs in lubricant. This mechanism has a built-in motor with built-in electrical controls. There is also a self-contained water tank, placed in the base.

The table has automatic drive, with all controls and adjustments gathered in the front of the machine. All revolving members are carried in anti-friction bearings. Wear in the wheel is compensated for on the cross slide.

The base of the machine is a heavy one-piece box-type casting, weighing approximately 1,400 pounds, and carried on a three-point bearing. One V and one flat way, with a center distance of seven inches, carry the sliding table. Both ways are scraped to master plates.

An oil reservoir is placed in the base, the lower portion of which latter is extended to add to the rigidity of the machine. The main table is carried on a V-way and a flat way, which are oiled from a reservoir in the rear corner of the water pan. This oil line has a cleanable disk filter fitted. The reverse valve and the cylinder which drive the table are a single unit. The workhead travels with and is mounuted on a swivel circle on the table.

All the auxiliary units, as the plug-sizing device, the gaugematic and fixture operating units are inclosed with removable covers.

An in-and-out diamond adjustment is placed in front of the operating chuck. The fixture operating lever extends to the right and is placed with the stop and start lever for the workhead. The table run-out latch is located on the gear box. The table speed throttle lever and the table reverse lever are also placed on the gear box and under them the truing speed and finishing speed buttons. The cross-feed hand wheel is placed on the right, with the motor switch below.

In the rear are the wheel-head idler and coarse woven belt, oil filter and the five-horse power motor, the gear-driven oil pump for the hydraulic system with the water tank above it. The water pump is connected directly to the motor through a flexible coupling on the far side of the oil pump.

The wheel heads used on this machine are stated to be built especially for high-speed work, the smallest spindle running at 42,000 revolutions per minute. The head is adjustable, so that one length of wheel-head belt may be used for practically any size of pulley. The wheel truing device drops hydraulically and is raised by a cam on the cross slide. It operates automatically under production conditions, but by hand when truing a new wheel.

QUICK CHANGE COLLETS

The Cincinnati Milling Machine Company, Cincinnati, O., is placing on the market a new line of quick change collets and shell end mill arbors and a quick change adapter to be used with them.

The adapter is mounted on the nose of any milling machine having a 5 1/8 inch diameter standard spindle nose with the national taper hole, 3½ inch taper per foot.

The collet or arbor is inserted in the adapter until its taper fits snugly into the non-sticking taper hole of the milling machine spindle. A quarter turn of the ring nut in a clockwise direction locks the collet securely. The time required to remove a quick change collet and replace it with another collet is said to be about a third of a minute. Accurate alignment is maintained because the collet is seated in the spindle taper hole by end pressure by the nut.

This quick change system is claimed to reduce idle time and to make it possible to do drilling, boring, end-milling, face milling and shell end milling on a piece of work with a single setting. The operator selects collets and arbors for the work he is to do and arranges them in sequence on the bench for use as they are needed.

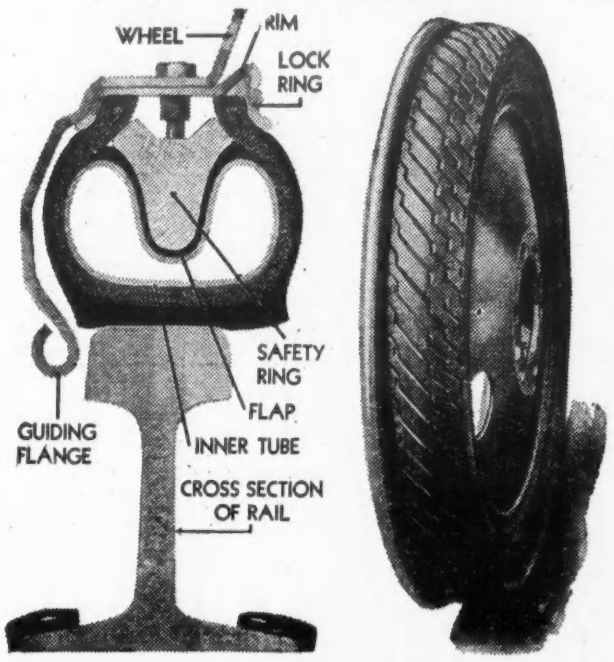
Quick change shell end mill arbors are available for shell end mills having national standard diameters as follows: 1¼, 1½, 1¾, 2, 2¼, 2½, 2¾, 3, 3¼, 3½, 4, 4½, 5, 5½ and 6 inches. The collets may be had with Nos. 7, 9, 10 and 11 B. & S., Nos. 2, 3 and 4 Morse tapers, either plain or tang drive.

TEMPERATURE REGULATORS

The Taylor Instrument Company, Rochester, N. Y., is putting out a new Tycos temperature regulator, in which friction is claimed to have been practically eliminated, resulting in immediate action of the valve stem corresponding to the temperature change.

The tube system of this device also has been redesigned, consisting of a double seamless bellows with heavy copper connection tubing and small rustless steel bulb with a thin wall. The thin wall increases the rapidity of response and the layout of the system permits a minimum volume of the actuating medium.

Goodyear Builds Rail Car Tires for Budd-Michelin



THE ABOVE VIEWS show a cross-section of the Goodyear-built rubber tire, used on the Budd-Michelin railway car, previously described in detail in Automotive Daily News. This is the first sectional view, in so far as we know, that has appeared of this tire, which is shown in its completed form on the right

The Goodyear organization has received a license from the Michelin Company in France and is now manufacturing tires for the Budd-Michelin rail motor car, previously described in Automotive Daily News. On this page we are presenting a cross-section view of this new tire, together with a view of the finished casing.

The tire, carrying 85 pounds of air pressure and constructed similar to an automobile tire, is equipped with a demountable rim and wheel which has a steel guiding flange to prevent the tire from leaving the track. A safety ring made of wood is bolted to the center of the rim and the tire is shaped to fit around it. Purpose of the safety ring is to prevent the tire from running flat in case of puncture. The coach with a punctured tire can proceed under slower speed to the next station, where a quick change to another tire can be made. However, possibilities of flat rail tires are less likely than on ordinary highways because steel rails ar enearly always smooth and free from nails, tacks or glass.

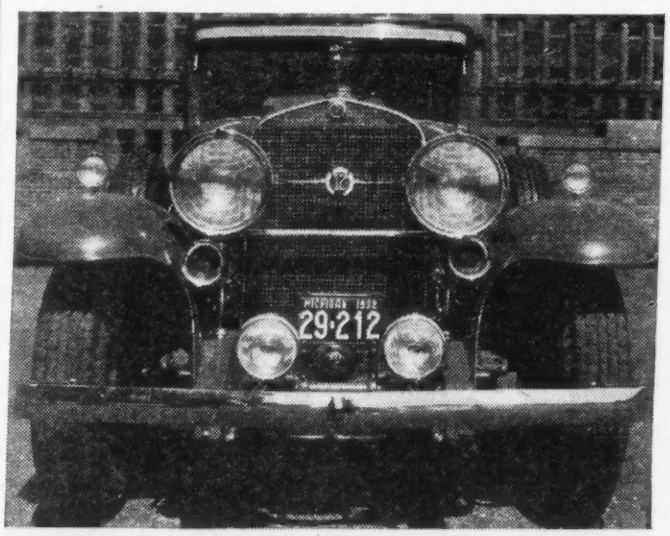
On track curves the quarter-inch clearance between the guiding flange and the rail is taken up when the coach takes the curve.

There is an insulated rubber pad between the parts that make up the lower section of the guiding flange which absorbs any slight noises at the point of contact with the flange and rail.

The rail tire has a load capacity of 1,650 pounds per tire and the new coaches constructed of stainless steel have a weight of 11,000 pounds, as compared with as high as 150,000 pounds for the large Pullman cars.

Pneumatic rail tires will, in all probability, find their immediate usefulness on railway coaches used on short runs where the traffic is too light to justify the expense of locomotive and coaches.

Guide Has New Headlamps



These new headlamps have just been brought out by the Guide Lamp Corporation of Anderson, Ind. The company has just brought out a new headlamp which is being marketed through United Motors Service.

These new lamps are designed to solve a problem that has always presented a hazard in night driving, that of lack of vision, particularly in passing.

The new Guide driving and passing lamps are mounted below the regular headlamps by means of a bracket attached to the bumper support. Their beams do not show above the bottom of the windshield on any approaching car. The right-hand lamp is the driving lamp. The left-hand one is the passing lamp. The driving lamp is switched on the moment the driver switches to "bright," and throws a broad beam down the road, illuminating it for a quarter of a mile or more, it is claimed. The "passing lamp" is placed on the left and is in use the moment the driver switches his lights to "dim" in passing another car. This throws a broad beam across the road to the right, illuminating the edge, ditch or any obstruction on the highway. The lights are so arranged that their operation is purely automatic, functioning with the throws of the switch on the regular lights. However, if desired, they may be arranged to operate independently, with a separate switch.

SUPERSENSITIVE RELAYS

The American Instrument Company, Washington, D. C., is announcing a supersensitive relay that will break 1,320 watts with four milli-amperes at six volts and is impervious to dust and dirt. It is also claimed to be safe where an open spark would be dangerous. This device is being marketed under the name of "Aminco."

The relay is designed to control relatively heavy currents through a limited mechanical impulse of thermostatic action or through variations in electrical resistance set up by varying the intensity of light striking a photo-electric cell.

These relays are made in two styles in both of which coils, armatures and frames are identical. The relay coil has a resistance of 1,300 ohms and operates at six volts d. c. The devices may be had for special purposes with coil resistance up to 50,000 ohms.

WORM GEAR SPEED REDUCERS

Winfield H. Smith, Inc., Springville, N. Y., is introducing two new lines of worm-gear speed reducers. This concern now offers standard units for every requirement from 1-20 to 5 horse power capacity.

One of these new reducers, known as the 3½B, is designed for transmitting loads up to ¼ horse power. It has a housing with a solid top and a large side cover plate. This design allows the worm gear to be keyed to the shaft, and complete assembly work on the worm gear may be made before it is put in the housing. The worm gear is of phosphor bronze, carried on Timken roller bearings. The worm is of hardened steel cut integral with the worm shaft, carried on Gurney radial-thrust bearings. All shaft extensions are protected by special oil seals. Standard ratios are 58 to 1, 36 to 1, 18 to 1 and 9 to 1. Special ratios may be had if desired.

The other new offering is known as the 4½T; it is for medium duty service, and has the worm placed above the gear. The worm is cut integral with the high-speed shaft, which is mounted on radial-thrust ball bearings. Other parts are the same as those used in the 3½B. Standard ratios and horse power capacities are based on 1,750 r. p. m. of the high-speed shaft.

Major Specifications and Mechanical Details of 1932 Commercial Cars

LEADING MAKES NATIONALLY DISTRIBUTED

Make and Model	Capacity—Tons or Lbs.	Chassis Price	Engine	Valve Arr'g'm't	No. of Cyls.	Bore and Stroke	Piston Disp.	Tax H. P.	Max. Brake H. P. and Peak R. P. M.	Type Camshaft Drive	Radiator Make	Clutch Make	Universals Make	Steering Gear Make	Carburetor Make	Fuel Feed Type	Make Electr'l System	Make Transmission	No. Spds. For.	Rear Axle Make	Type Final Drive	Final Gear Reduction	Type Service Brakes	Area Service Brake Lining	Standard Wheel Base	Chassis Wgt.	Standard Tire Sizes Front	Rear
Austin	400	475	Own	L	4	2.2x3	45.6	7.8	13@3000	G	Hex	Rock	Spic	Own	Til	Gra	Aut	W-G	3	Sal	Sp	5.25	O4M	76.5	75	1210	3.75x18	3.75x18
Autocar R	1½	2250	Own	L	6	3¾x4¾	314.0	33.7	75@2400	G	G & O	Br-L	Spic	Ross	Str	P	DR	Br-L	4	Own	Sp	33.4	4IH	388	*159	5350	20x7.00	20x7.00D
Autocar A	1½-2	3200	Own	L	6	4 x4¾	358.0	38.4	82@2400	G	G & O	Long	Spic	Ross	Str	P	DR	Own	5	Own	Sp	29.7	LO4IDV*	460	150	5400	20x8.25	20x8.25
Autocar D	2-2½	3500	Own	L	6	4 x4¾	358.0	38.4	82@2400	G	Per	Long	Spic	Ross	Str	Vac	DR	Own	4	Own	2 R	33 5	LO4IDV*	460	150	5600	20x8.25	20x8.25D
†Autocar SH	2½-3	4300	Own	L	6	4¼x4¾	404.0	43.4	92@2400	G	Own	Long	Spic	Ross	Str	Gra	DR	Own	4	Own	2 R	44 0	O2IM-T	328	114	6770	34x7	34x7D
†Autocar H	2½-3	4100	Own	L	4	4½x5½	350.0	32.4	45@1450	G	Own	Long	Spic	Ross	Str	Gra	DR	Own	4	Own	2 R	48.6	O2IM	328	114	6770	34x7	34x7D
†Autocar HS	3-3½	4600	Own	L	4	4½x5½	350.0	32.4	45@1450	G	Own	Long	Spic	Ross	Str	Gra	DR	Own	4	Own	2 R	54 3	O2IM	516	114	7600	40x8	40x8D
†Autocar SHS	3-3½	4800	Own	L	6	4¼x4¾	404.0	43.4	92@2400	G	Own	Long	Spic	Ross	Str	Gra	DR	Own	4	Own	2 R	54.3	O2IM-T	516	114	8100	40x8	40x8D
Autocar N	3-3½	4800	Own	L	6	4¼x4¾	404.0	43.4	92@2400	G	Own	Long	Spic	Ross	Str	Vac	DR	Own	4	Own	2 R	41.2	OL4IHV-T	574	174	7990	20x9.75	20x9.75D
Autocar TFA	3½-5	6100	Own	L	6	4½x4¾	453.0	48.6	101@2400	G	Own	Long	Spic	Ross	Str	Vac	DR	Own	12	Own	2 R	101 3	LO4IDV	602	192	9300	20x10.50	20x10.50D
Autocar C	3½-5	5900	Own	L	6	4½x4¾	453.0	48.6	101@2400	G	Own	Long	Spic	Ross	Str	Vac	DR	Own	4	Own	2 R	51.7	O4IMV-T	516	172	9500	24x10.50	24x10.50D
Autocar FE	7½	11000	Ster	L	6	5¼x6	780	66.2	156@1800	G	G & O	Br-L	Spic	Ross	Zen	P	NE	Br-L	12	Wis	2 R	89.2	W4IA-T	674	180	12300	24x10.50	24x10.50D
*Autocar GE	10	12500	Ster	L	6	5¼x6	780	66.2	156@1800	G	G & O	Br-L	Spic	Ross	Zen	P	NE	Br-L	12	Tim	Wo	82.2	W6IA-T	720	198	16300	20x9.75	20x9.75D
Brockway 80 C	* 9500	1215	Con	L	6	3¼x4	214.7	27.3	71@3200	C	G &O	Borg	Spic	Ross	Zen	P	Aut	W-G	4	Tim	Sp	36.2	CB4IM	248	149	4075	20x6.00	20x6.00D
Brockway 90 C	*11500	1525	Con	L	6	3⅜x4⅝	248.2	27.3	70@3200	C	G & O	Borg	Spic	Ross	Zen	P	Aut	W-G	4	Tim	Sp	37.4	CB4IM	280	149	4355	20x6.50	20x6.50D
Brockway 92 C	*12500	1800	Con	L	6	3⅜x4⅝	248.2	27.3	70@3200	C	G & O	Borg	Spic	Ross	Zen	P	Aut	W-G	4	Tim	Sp	37.4	CB4IM	280	149	4450	32x6.00	32x6.00D
Brockway 120 C	*15000	1990	Con	H	6	4 x4½	311.0	38.4	73@2400	C	G & O	Br-L	Spic	Ross	Zen	P	*Aut	Br-L	4	Tim	Sp	38.5	L4IH	353	156	5500	32x6	32x6D
Brockway 140 C	*17500	2495	Con	H	6	4 x4½	311.0	38.4	73@2400	C	G & O	Br-L	Spic	Ross	Zen	P	*Aut	Br-L	4	Wis	2 R	43.5	L4IHV	386	156	6100	32x6	32x6D
Brockway 141 C	*19500	2935	Con	H	6	4 x4½	311.0	38.4	73@2400	C	G & O	Br-L	Spic	Ross	Zen	P	*Aut	Br-L	4	Wis	2 R	46.2	L4IHV	380	170	6500	32x6	32x6D
Brockway 170 C	*19500	3160	Con	H	6	4½x4¾	380.9	40.8	89@2200	C	G & O	Br-L	Spic	Ross	Zen	P	*Aut	Br-L	4	Wis	2 R	46.6	L4IHV	380	170	7100	32x6	32x6D
Brockway 175 C	*19500	3660	Con	H	6	4⅝x4¾	427.5	45.9	100@2200	C	G & O	Br-L	Spic	Ross	Zen	P	*Aut	Ful	5	Wis	2 R	46.6	L4IHV	380	170	7200	34x7	34x7D
Brockway 195 C	*22000	3820	Con	H	6	4½x4¾	380.9	40.8	89@2200	C	G & O	Br-L	Spic	Ross	Zen	P	*Aut	Br-L	4	Wis	2 R	52.4	L4IHV	471	170	8100	34x7	34x7D
Brockway 220 C	*25000	4560	Con	H	6	4⅝x4¾	427.5	45.9	100@2200	C	G & O	Br-L	Spic	Ross	Zen	P	*Aut	Br-L	4	Wis	2 R	50.7	L4IHV	546	170	8675	36x8	36x8D
Brockway 260 C	*28000	5850	Con	H	6	4½x5¼	501.0	48.6	120@2200	C	G & O	Ful	Spic	Ross	Zen	P	*Aut	Ful	4	Wis	2 R	50.7	L4IHV	546	212	9000	22x10.50	22x10.50D
Chevrolet	½	345	Own	H	6	3⅛x3¾	194.0	26.3	50@2600	G	Har	Own	Own	Own	Car	P	DR	Own	3	Own	Sp	13.6	O4IM	101	109	*1880	19x4.75	19x4.75
Chevrolet	1½	520	Own	H	6	3⅛x3¾	194.0	26.3	50@2600	G	Har	Own	Own	Own	Car	P	DR	Own	4	Own	Sp	33 4	——	—	131	2700	30x5	32x6
Chevrolet	1½	575	Own	H	6	3⅛x4¾	194.0	26 3	50@2600	G	Har	Own	Own	Own	Car	P	DR	Own	4	Own	Sp	33.4	O4IM	170	157	3015	30x5	30x5D
Diamond T 216 B	1½	795	Her	L	6	3⅜x4¼	228.0	27.3	56@2400	G	G & O	Borg	Spic	Ross	Zen	P	Aut	W-G	4	Cla	Sp	——	L4IH	252	135⅛	3260	20x6.50B	20x6.50B
Diamond T 316	2	1195	Her	L	6	3⅝x4¼	263.0	29.4	65@2400	G	G & O	Borg	Spic	Ross	Zen	P	Aut	W-G	4	Cla	Sp	——	L4IH	350	155	4400	20x6.50B	20x6.50DB
Diamond T 303 F	2-2½	1795	Her	L	6	3¾x4½	298.0	33.7	67@2400	G	G & O	Borg	Spic	Ross	Zen	P	Aut	Cov	4	Cla	Sp	——	L4IHV-T	350	159¾	5100	20x7.00B	20x7.00DB
Diamond T 551 B	2½-3	2395	Her	L	6	4 x4½	339.0	38.4	74@2400	G	G & O	Cov	Spic	Ross	Zen	P	Aut	Cov	4	Tim	Sp	——	L4IHV-T	408	168	6000	20x7.50B	20x7.50DB
Diamond T 303 F B	2-2½	2425	Her	L	6	4 x4½	339.0	38.4	74@2400	G	G & O	Cov	Spic	Ross	Zen	P	L-N	Cov	4	Cla	Sp	——	L4IHV	408	199	6100	20x7.50	20x7 50DB
Diamond T 504 A	3	2650	Her	L	6	4 x4½	339.0	38.4	74@2400	G	G & O	Cov	Spic	Ross	Zen	P	Aut	Cov	4	Wis	2 R	——	L4IHV-T	408	176½	6400	20x8.25B	20x8.25DB
Diamond T 506 A	3	2950	Her	L	6	4½x4½	383.0	43.5	85@2200	G	G & O	Cov	Spic	Ross	Zen	P	L-N	Cov	5	Wis	2 R	——	L4IHV-T	408	184	6400	20x8.25B	20x8.25DB
Diamond T 603	3-4	3395	Her	L	6	4⅝x4¾	428.4	45.9	94@2200	G	G & O	Cov	Spic	Ross	Zen	P	Aut	Cov	5	Wis	2 R	——	L4IHV-T	499	169	7500	20x9.00B	20x9.00DB
Diamond T 606 B	3-4	3695	Her	L	6	4½x5¼	501.6	48.6	110@2200	G	G & O	Cov	Spic	Ross	Zen	P	L-N	Cov	5	Wis	2 R	——	L4IHV-T	499	187½	7500	20x9.00B	20x9.00DB
Diamond T 750	4-5	4925	Her	L	6	4⅝x5¼	529.0	51.4	114@2200	G	G & O	Cov	Spic	Ross	Zen	P	Aut	Cov	5	Wis	2 R	——	W4IA	552	178	9300	22x9.75B	22x9.75DB
*Diamond T 801	4	4140	Her	L	6	4⅜x4¾	428.4	45.9	94@2200	G	G & O	Cov	Spic	Ross	Zen	P	Aut	Br-L	7	Own	Wo	——	L6IHV-T	571	189½	8300	36x8P	36x8P
*Diamond T 1201	6	5600	Her	L	6	4½x5¼	501.0	48.6	110@2200	G	G & O	Cov	Spic	Blo	Ross	Zen	P	Aut	Br-L	7	Tim	Wo	——	W4IA-T	238	190	11000	34x7P	34x7DP
*Diamond T 1602	8	6400	Her	L	6	4⅝x5¼	529.0	51.3	114@2400	G	G & O	Cov	Spic	Blo	Ross	Zen	P	Aut	Br-L	7	Tim	Wo	——	W4IA-T	238	190	11700	36x8P	36x8DP
*Diamond T 1603	8	7500	Wak	L	6	5 x5¾	677.4	60.0	127@2000	G	G & O	Br-L	Spic-Blo	Ross	Zen	P	Aut	Br-L	7	Tim	Wo	——	W4IA-T	238	194	12500	36x8P	36x8D
Dodge Bros. UF 10	½	375	Own	L	4	3⅝x4¾	196.0	21.0	48@2800	G	Fed	Borg	Un	Own	Car	P	DR	Own	3	Own	Sp	12.8	O4IH	121	109	1925	19x5.00	19x5.00
Dodge Bros. F 10	½	445	Own	L	4	3¼x4¼	211.5	25.3	66@3200	C	Fed	Borg	Un	Own	Car	P	DR	Own	3	Own	Sp	*12.8	O4IH	121	109	1975	19x5.25	19x5.25
Dodge Bros. U 1	¾	490	Own	L	4	3⅜x4¼	196.0	21.0	45@2800	G	Fed	Borg	Spic	Han	Car	P	DR	Own	3	Own	Sp	19.2	O4IH	189	124	2260	20x6.00	20x6.00
Dodge Bros. DA 1	¾	595	Own	L	6	3⅜x3⅞	208.0	27.3	63@3200	C	Fed	Borg	Spic	Han	Zen	P	DR	Own	3	Own	Sp	19.2	O4IH	189	124	2360	20x6.00	20x6.00
Dodge Bros. U 1	1	495	Own	L	4	3⅜x4¼	196.0	21.0	45@2800	G	Fed	Borg	Spic	Han	Car	P	DR	Own	4	Own	Sp	36.1	O4IH	206	133	2590	20x6.00	32x6
Dodge Bros. DA 1	1	595	Own	L	6	3⅜x3⅞	208.0	27.3	63@3200	C	Fed	Borg	Spic	Han	Zen	P	DR	Own	4	Own	Sp	33.4	O4IH	206	133	2690	20x6.00	32x6
Dodge Bros. UG 30	1½	525	Own	L	4	3⅜x4¾	196.0	21.0	48@2800	G	Fed	Borg	Cle	Own	Car	P	DR	Own	5	Own	Sp	36.9	O4IH	176	131	2490	6.00x20	32x6
Dodge Bros. UG31	1½	550	Own	L	4	3⅝x4¾	196.0	21.0	48@2800	G	Fed	Borg	Cle	Own	Car	P	DR	Own	5	Own	Sp	36.1	O4IH	176	131	2640	20x6.00	36x6
Dodge Bros. G 30	1½	585	Own	L	6	3¼x4¼	211c5	25.3	60@3100	—	—	—	—	—	—	P	—	—	5	—	—	—	4HI	—	131	2560	20x6.00	32x6
Dodge Bros. UF 30	1½	595	Own	L	4	3⅝x4¾	196.0	21.0	48@2800	G	Fed	Borg	Cle	W-G	Car	P	—	—	5	Own	Sp	37.1	O4IH	187	136	2581	20x6.00	32x6
Dodge Bros. G 31	1½	610	Own	L	6	3¼x4½	211.5	25.3	60@3100	—	—	—	—	—	—	P	—	—	4	—	—	—	4HI	—	157	2710	20x6.00	32x6
Dodge Bros. UF 31	1½	670	Own	L	4	3⅝x4¾	196.0	21.0	48@2800	G	Fed	Borg	Cle	W-G	Car	P	DR	Own	4	Own	Sp	37.1	O4IH	229	165	2757	20x6.00	32x6
Dodge Bros. F 30	1½	695	Own	L	6	3¼x4¼	211.5	25.3	66@3200	C	Fed	Borg	Cle	W-G	Car	P	—	—	4	Own	Sp	37.1	O4IH	187	136	2631	20x6.00	32x6
Dodge Bros. F 31	1½	770	Own	L	6	3¼x4¼	211.5	25.3	66@3200	C	Fed	Borg	Cle	W-G	Car	P	DR	Own	4	Own	Sp	37 1	O4IH	229	165	2807	20x6.00	32x6
Dodge Bros. F 35	1½	1425	Own	L	6	3⅜x3⅞	208.0	27.3	63@3200	C	Fed	Borg	Cle	Han	Zen	P	DR	Own	4	Own	Sp	41.4	O4IH	305	140	3780	20x6.00	20x6.00D
Dodge Bros. F 36	1½	1485	Own	L	6	3⅜x3⅞	208.0	27.3	63@3200	C	Fed	Borg	Cle	Han	Zen	P	DR	Own	4	Own	Sp	41.4	O4IH	305	165	3972	20x6.00	20x6.00D
Dodge Bros. G 43	2	795	Own	L	6	3¼x4⅜	217.7	25.3	73@3200	—	—	—	—	—	—	P	DR	Own	4	—	Sp	—	4HI	229	136	3345	20x7.00	20x7.00D
Dodge Bros. G 44	2	825	Own	L	6	3¼x4⅜	217.7	25.3	73@3200	—	—	—	—	—	—	P	DR	Own	4	—	Sp	—	4HI	229	165	3465	20x7.00	20x7.00D
*Dodge Bros. F 40	2	1995	Own	L	6	3⅝x5	309.6	31.5	96@3000	G	Long	Borg	Cle	Sag	DL	P	DR	Own	4	Own	Sp	43.7	O4IH-T	350	150	5173	20x6.50	20x6.50D
*Dodge Bros. F 41	2	2085	Own	L	6	3⅝x5	309.6	31.5	96@3000	G	Long	Borg	Cle	Sag	DL	P	DR	Own	4	Own	Sp	43.7	O4IH-T	350	165	5211	20x6.50	20x6.50D
Dodge Bros. F 42	2	2180	Own	L	6	3⅝x5	309.6	31.5	75@3200	C	Fed	Borg	Cle	Own	Car	P	DR	Own	5	Own	Sp	50.0	O4IH-T	229	136	5311	20x7.00	20x7.00D
Dodge Bros.	3	1515	Own	L	6	3⅜x4½	241.0	27.3	78@3000	C	Long	Borg	Un	Han	Zen	Vac	NE	Own	4	Own	Sp	46.3	O4IH	382	135	4235	32x6	32x6D
Dodge Bros.	3	1565	Own	L	6	3⅜x4½	241.0	27.3	78@3000	C	Long	Borg	Un	Han	Zen	Vac	NE	Own	4	Own	Sp	46.3	O4IH	382	165	4520	32x6	32x6D
Dodge Bros.	3	1615	Own	L	6	3⅜x4½	241.0	27.3	78@3000	C	Fed	Borg	Un	Han	Zen	Vac	NE	Own	4	Own	Sp	46.3	O4IH	382	185	4715	32x6	32x6D
Dodge Bros. F 60	3	2645	Own	L	6	3⅝x5	309.6	31.5	96@3000	G	Long	Borg	Cle	Sag	DL	P	DR	Own	4	Own	2 R	56.6	O4IH-T	416	146	5543	32x6	32x6D
*Dodge Bros. F 61	3	2575	Own	L	6	3⅝x5	309.6	31.5	96@3000	G	Long	Borg	Cle	Sag	DL	P	DR	Own	4	Own	Sp	48 8	O4IH-T	416	170	5789	32x6	32x6D
*Dodge Bros. F 62	3	2695	Own	L	6	3⅝x5	309.6	31.5	96@3000	G	Long	Borg	Cle	Sag	DL	P	DR	Own	4	Own	Sp	48.8	O4IH-T	416	195	5901	32x6	32x6D
Dodge Bros G 80	4	5250	Own	L	8	3½x5	384.8	39.2	120@3000	G	Long	Borg	Cle	Sag	Str	P	DR	Own	5	Own	Sp	62.7	B4IA-T	650	146	7640	20x9.75	20x9.75D
Dodge Bros. G 81	4	5285	Own	L	8	3½x5	384.8	39.2	120@3000	G	Long	Borg	Cle	Sag	Str	P	DR	Own	5	Own	Sp	69.6	B4IA-T	650	170	7840	20x9.75	20x9.75D
Dodge Bros G 82	4	5350	Own	L	8	3½x5	384.8	39.2	120@3000	G	Long	Borg	Cle	Sag	Str	P	DR	Own	5	Own	Sp	69.6	B4IA-T	650	195	8040	20x9.75	20x9.75D
Dodge Bros G 83	4	5415	Own	L	8	3½x5	384.8	39.2	120@3000	G	Long	Borg	Cle	Sag	Str	P	DR	Own	5	Own	Sp	69.6	B4IA-T	650	220	8400	20x9.75	20x9.75D
Essex Com.	¾	435	Own	L	6	2¾x4½	163.0	18.2	55@3300	C	Har	Own	Spic	Gem	Mar	Vac	Aut	Own	3	Own	Sp	5 40	4M	—	110½	1970	20x5	20x5.50
Federal D 3	*1½	670	Con	L	4	3⅞x4¼	200.5	24.0	50@2700	C	Long	Borg	Cle	Gem	Zen	P	DR	W-G	4	Cla	Sp	40.8	L41H	377	130	3225	20x6.00	32x6
Federal E 3	*1½	695	Con	L	6	3⅜x4	215.0	27.3	72@3400	C	Long	Borg	Cle	Gem	Zen	P	DR	W-G	4	Cla	Sp	40.8	L41H	377	130	3225	20x6.00	32x6
Federal F 7	*1¾	1325	Con	L	6	3⅜x4⅝	248.0	27.3	64@2600	C	Long	Borg	Pet	Gem	Zen	P	DR	Own	4	Tim	Sp	29.2	L41H	413	132	3765	30x5	30x5D
Federal F 8	*1¾-2	1425	Con	L	6	3⅜x4⅝	248.0	27.3	64@2600	C	Long	Borg	Pet	Gem	Zen	P	DR	Own	4	Tim	Sp	34.0	L41H	438	132	3865	30x5	30x5D
Federal A 6	*2	1695	Con	L	6	3⅜x4⅝	248.0	27.3	64@2600	C	Long	Borg	Pet	Ross	Zen	Vac	DR	Own	4	Cla	Sp	38.5	L41H	450	151	4580	32x6	32x6D
Federal A 6 T	*2½	1995	Con	L	6	3⅜x4⅝	248.0	27.3	64@2600	C	Long	Borg	Pet	Ross	Zen	Vac	DR	Own	4	Tim	Sp	47.1	L41HV	659	151	5110	32x6	32x6D
Federal A 6 T W	*2½	2130	Con	L	6	3⅜x4⅝	248.0	27.3	64@2600	C	Long	Borg	Pet	Ross	Zen	Vac	DR	Own	4	Tim	Sp	52.9	L41HV	659	151	5110	32x6	32x6D
Federal T 3 W	*2½	1595	Wau	L	4	4 x5	251.0	25.6	50@2000	G	Long	Borg	Pet	Ross	Zen	Vac	DR	Own	4	Tim	Wo	36.3	L41H	575	148	5110	32x6	36x6
Federal T 8 W F	*2½	2195	Con	L	6	3⅜x3⅞	248.0	27.3	64@2600	C	Long	Borg	Pet	Ross	Zen	Vac	DR	Own	4	Tim	Wo	38.8	L41HV	659	148	5400	32x6	32x6D
*Federal D 2 S W	*2½-3	1050	Con	L	4	3⅞x4¼	200.5	24.0	50@2700	C	Long	Borg	Cle	Gem	Zen	P	DR	W-G	4	Cla	Sp	40.8	L61H	566	140	3925	20x6.00	32x6
*Federal E 2 S W	*2½-3	1150	Con	L	6	3⅜x4	215.0	27.3	60@2600	C	Long	Borg	Cle	Gem	Zen	P	DR	W-G	4	Cla	Sp	40.8	L61H	566	145	3975	20x6.00	32x6
*Federal D 2 D	*2½-3	1350	Con	L	4	3⅞x4¼	200.5	24.0	50@2700	C	Long	Borg	Cle	Gem	Zen	P	DR	W-G	4	Cla	Sp	40.8	L6IH	566	140	4235	20x6.00	32x6
*Federal E 2 D	*2½-3	1450	Con	L	6	3⅜x4	215.0	27.3	60@2600	C	Long	Borg	Cle	Gem	Zen	P	DR	W-G	4	Cla	Sp	40.8	L61H	566	145	4310	20x6.00	32x6
Federal T 10 B	*2½-3	2550	Con	H	6	4 x4½	311.0	38.4	75@2200	C	Long	Borg	Pet	Ross	Zen	P	DR	Own	4	Tim	Sp	44.5	L41HV	659	165	6550	34x7	34x7D
Federal T 10 W	*2½-3	2645	Con	H	6	4 x4½	311.0	38.4	75@2200	C	Long	Borg	Pet	Ross	Zen	P	DR	Own	4	Tim	Sp	44.0	L41HV	659	165	6550	34x7	34x7D
Federal T 10 D R	*2½-3	2685	Con	H	6	4 x4½	311.0	38.4	75@2200	C	Long	Borg	Pet	Ross	Zen	P	DR	Own	4	Tim	2R	45.6	L41HV	659	165	6550	34x7	34x7D
Federal U 6	*3½-4	3860	Con	H	6	4½x4¾	381.0	40.8	85@2200	C	Long	Borg	Pet	Ross	Zen	P	DR	Br-L	7	Tim	Wo	64.6	L41HV	767	165	7420	36x8	36x8D
Federal U 6 D R	*3½-4	3860	Con	H	6	4½x4¾	381.0	40.8	85@2200	C	Long	Borg	Pet	Ross	Zen	P	DR	Br-L	7	Tim	2R	69.6	L41HV	767	165	7420	36x8	36x8D
*Federal A 6 S W	*4	2195	Con	L	6	3⅜x4⅝	248.0	27.3	64@2600	C	Long	Borg	Pet	Ross	Zen	Vac	DR	Own	4	Cla	Sp	38.5	L61HV	675	164	5620	32x6	32x6D
Federal C 7	*5-6	4485	Con	H	6	4⅜x4¾	428.4	45.9	100@2200	C	Long	Borg	Pet	Han	Zen	P	DR	Br-L	7	Tim	Sp	75.2	L41HV	866	195	9550	20x9.75	20x9.75D
Federal C 7 W	*5-6	4485	Con	H	6	4⅜x4¾	428.4	45.9	100@2200	C	Long	Borg	Pet	Han	Zen	P	DR	Br-L	7	Tim	W	78.0	L41HV	866	195	9550	20x9.75	20x9.75D
Federal C 8	*5-6	4895	Con	H	6	4⅜x4¾	428.4	45.9	100@2200	C	Long	Borg	Pet	Han	Zen	P	DR	Br-L	7	Tim	2R	75.2	L41A	921	195	9650	20x9.75	20x9.75D
Federal C 8 W	*5-6	4895	Con	H	6	4⅜x4¾	428.4	45.9	100@2200	C	Long	Borg	Pet	Han	Zen	P	DR	Br-L	7	Tim	Wo	78.0	L41A	921	195	9650	20x9.75	20x9.75D
Federal X 8	*7½	4335	Con	L	4	5 x6	471.0	40.0	61@1350	G	Long	Borg	Pet	Gem	Zen	Vac	AB	Br-L	7	Tim	Wo	111.0	T21MV	603	162	9750	36x6S	40x14S
Federal X 8 D R	*7½	4335	Con	L	4	5 x6	471.0	40.0	61@1350	G	Long	Borg	Pet	Gem	Zen	Vac	AB	Br-L	7	Tim	2R	106.0	T21MV	603	162	9750	36x6S	40x14S
Federal X 8 R	*7½	4735	Con	H	6	4⅜x4¾	428.4	45.9	100@2200	C	Long	Borg	Pet	Ross	Zen	P	DR	Br-L	7	Tim	Wo	111.0	T21MV	462	162	10475	40x8	40x8D
Federal X 8 R D R	*7½	4735	Con	H	6	4⅜x4¾	428.4	45.9	100@2200	C	Long	Borg	Pet	Ross	Zen	P	DR	Br-L	7	Tim	2R	106.0	T21MV	462	162	10475	40x8	40x8D
Ford	½-¾	320	Own	L	4	3⅞x4¼	200.0	—	50@2800	G	Own	Long	Spic	Gem	Zen	Gra	Own	Own	4	Own	Sp	——	—	—	106	——	20x6.00B	20x6.00DB
Ford	1½	470	Own	L	4	3⅞x4¼	200.0	—	50@2800	G	Own	Long	Spic	Gem	Zen	Gra	Own	Own	4	Own	Sp	——	—	—	131	——	20x6.00B	20x6.00DB
Ford	1½	500	Own	L	4	3⅞x4¼	200.0	—	50@2800	G	Own	Long	Spic	Gem	Zen	Gra	Own	Own	4	Own	Sp	——	—	—	157	——	20x6.00B	20x6.00DB
General Motors T-15	*6500	645	Own	L	6	3⅛x3⅞	200.3	26.3	60@3000	C	Long	Own	Mec	Sag	Mar	P	DR	Own	3	Own	Sp	16.1	B4IM	211	130	2625	20x5.50B	20x5.50B
General Motors T-18	*8200	595	Own	L	6	3⅛x3⅞	200.3	26.3	66@3200	C	Long	Own	Own	Sag	Mar	P	DR	Own	4	Own	Sp	35.7	O4IM	175	131	2800	30x5P	32x6P
General Motors T-25	*9000	1200	Buick	H	6	3⅛x4⅝	257.5	28.3	76@2500	G	Long	Own	Spic	Sag	Mar	P	DR	Own	4	Own	Sp	29.6	B4IM	239	130	3375	20x6.00B	20x7.50B
General Motors T-19	*10000	745	Own	L	6	3⅛x3⅞	200.3	26.3	66@3200	C	Long	Own	Spic	Sag	Mar	P	DR	Own	4	Own	Sp	40.7	B4IM	290	140	3110	20x5.50B	32x6P
General Motors T-26	*11000	1210	Own	H	6	3⅛x4⅝	257.5	28.3	76@2500	G	Long	Own	Spic	Sag	Mar	P	DR	Own	4	Own	Sp	35.7	B4IM	290	130	3685	20x6.50B	20x8.25B
General Motors T-30	*12500	1545	Buick	H	6	3⅛x4⅝	257.5	28.3	76@2500	G	Long	Own	Spic	Sag	Mar	P	DR	Own	4	Own	Sp	28.6	B4IM	288	141	4490	30x5P	30x5DP
General Motors T-31	14000	1695	Own	H	6	3⅛x4⅝	257.5	28.3	76@2500	G	Long	Own	Spic	Sag	Mar	P	DR	Own	4	Own	Sp	35 5	B4IM	345	141	4695	32x6P	32x6DP
General Motors T-42	*15000	1845	Buick	H	6	3⅛x4⅝	257.5	28.3	76@2500	G	Long	Own	Spic	Sag	Mar	P	DR	Own	4	Own	Sp	33.4	B4IM	320	141	4725	32x6P	32x6DP
General Motors T-44	*16000	1935	Buick	H	6	3⅛x4⅝	257.5	28.3	76@2500	G	Long	Own	Spic	Sag	Mar	P	DR	Own	4	Own	Sp	40.9	B4IM	320	141

Major Specifications and Mechanical Details of 1932 Commercial Cars

LEADING MAKES NATIONALLY DISTRIBUTED

(Continued from Page 9)

Make and Model	Capacity—Tons or Lbs.	Chassis Price	Engine	Valve Arr'g'm't	No. of Cyls.	Bore and Stroke	Piston Disp.	Tax H. P.	Max. Brake H. P. and Peak R. P. M.	Type Camshaft Drive	Radiator Make	Clutch Make	Universals Make	Steering Gear Make	Carburetor Make	Fuel Feed Type	Make Electr'l System	Make Transmission	No. Spds. For.	Rear Axle Make	Rear Axle Type	Final Drive	Final Gear Reduction	Type Service Brakes	Area Service Brake Lining	Standard Wheel Base	Chassis Wgt.	Standard Tire Sizes Front	Standard Tire Sizes Rear
Indiana 19 DR	3½	3400	Her	L	6	4⅜x4¾	426.4	45.9	94@2200	G	Yo	Br-L	Spic	Ross	Str	P	Aut	Br-L	4	Wis	2R	52.3	L4IHV	489	170	8100	20x9.00	20x9.00D
Indiana 17 SBT 250	4	3250	Her	L	6	4⅜x4¾	428.4	45.9	94@2200	G	Yo	Br-L	Spic	Ross	Str	P	Aut	Br-L	4	Tim	Sp	37.8	L4IHV	625	188	8200	34x7	34x7D
*Indiana 17 SW 250	4	3475	Her	L	6	4⅜x4⅜	428.4	45.9	94@2200	G	Yo	Br-L	Spic	Ross	Str	P	Aut	Br-L	4	Tim	Wo	38.1	L4IHV	625	188	8500	34x7	34x7D
Indiana 43 DR	4	4300	Her	L	6	4½x5¼	501.0	48.6	110@2200	G	Yo	Br-L	Spic	Ross	Str	P	Aut	Br-L	4	Wis	2R	50.7	L4IHV	546	170	8500	20x9.75	20x9.75D
Indiana 45 DR	5	4800	Her	L	6	4⅝x5¼	529.0	51.3	115@2200	G	Yo	Br-L	Spic	Ross	Str	P	Aut	Br-L	4	Wis	2R	45.4	L4IHV	546	170	8700	20x9.75	20x9.75D
International A 1	¾	615	Wak	L	4	3⅜x4½	186.0	21.0	39@2400	G	Mod	Mec	Mec	Ross	Zen	Vac	DR	W-G	4	Own	Sp	39.5	BE4IM	212	136	2930	6.50x20	6.50x20
International A 2	1½	615	Wak	L	4	3⅜x4½	186.0	21.0	39@2400	G	Mod	Mec	Mec	Ross	Zen	Vac	DR	W-G	4	Own	Sp	39.5	BE4IM	212	136	*2935	6.00x20	6.00x20
International B 2	1½	665	Wak	L	4	3⅜x4½	186.0	21.0	39@2400	G	Mod	Mec	Mec	Ross	Zen	Vac	DR	Mec	6	Own	Sp	47.3	BE4IM	212	136	2960	6.00x20	6.00x20
International A L 3	1½	1450	Lyc	L	6	3¼x4½	224.0	25.3	54@2700	G	Mod	Own	Mec	Ross	Zen	Vac	DR	W-G	4	Own	Sp	42.9	B4IM	295	138	4032	20x6.00	20x6.00D
International A 3	1½	795	Lyc	L	6	3¼x4½	224.0	25.3	54@2700	G	Mod	Rock	Mec	Ross	Zen	P	DR	W-G	4	Own	Sp	33.8	BE4IM	287	136	3500	6.00x20	6.00x20
International A 3½	1½	1250	Lyc	L	6	3¼x4½	224.0	25.3	54@2700	G	Mod	Rock	Mec	Ross	Zen	P	DR	W-G	4	Own	Sp	34.9	BE4IM	302	136	3700	6.00x20	6.00x20D
International A 4	2	1750	Own	H	6	3⅝x4½	279.0	31.5	67@2600	G	Mod	Own	Mec	Ross	Zen	Vac	DR	Own	5	Own	Sp	47.6	BE4IH*	378	145	5221	32x6	32x6D
International W 1	2½	3850	Hall	H	4	4¼x5½	312.0	28.9	59@2000	G	Own	Own	Own	Own	Zen	Vac	RB	Own	5	Own	2R	60.5	BE4IM	710	148	8300	36x8S	38x8S
International A 5	3	2350	Own	H	6	3⅝x4½	279.0	31.5	67@2600	G	Mod	Own	Mec	Ross	Zen	Vac	DR	Own	5	Own	Sp	52.6	BE4IM*	430	156	6120	34x7	34x7D
International A 6	3	2675	Own	H	6	3⅝x4½	279.0	31.5	67@2600	G	Mod	Own	Mec	Ross	Zen	Vac	DR	Own	5	Own	Sp	62.5	BE4IM*	430	156	6120	34x7	34x7D
International W 2	3½	4850	Hall	H	4	4¾x5½	390.0	36.1	69@1800	G	Own	Own	Own	Own	Zen	Vac	RB	Own	5	Own	2R	70.5	BE4IM	794	160	10125	36x6S	40x12S
International A 7	5	6200	Own	H	6	4½x5½	525.0	48.6	117@2200	G	Mod	Rock	Mec	Ross	*Zen	P	DR	Own	5	Own	2 R	52.3	BO4IM-T	730	123	11250	9.75x20	9.75x20D
International A 8	5	6300	Own	H	6	5 x5½	650.0	60.0	136@2100	G	Mod	Rock	Mec	Ross	*Zen	P	DR	Own	5	Own	2 R	52.3	BO4IM-T	730	123	11250	9.75x20	9.75x20D
La France Rep. A 1	* 6000	795	Lyc	L	6	3 x4¾	201.5	21.5	60@2500	G	G&O	Borg	Spic	Han	Zen	Vac	Aut	Ful	4	Tim	Sp	36.1	L4IH	378	132	3000	20x5.50	32x6
La France Rep. C 1	* 7500	1295	Lyc	L	6	3¼x4½	224.0	25.4	61@2750	G	G&O	Borg	Spic	Han	Zen	Vac	Aut	Ful	4	Tim	Sp	35.8	L4IH	413	144	3300	20x6.00	32x6
La France Rep. D 1	* 9000	1595	Lyc	L	6	3¼x4½	224.0	25.4	61@2750	G	G&O	Borg	Spic	Han	Zen	Vac	Aut	Ful	4	Tim	Sp	37.9	L4IH	448	144	3725	30x5	30x5D
La France Rep. C 2	*10000	995	Lyc	L	6	3¼x4½	224.0	25.3	61@2800	G	Per	Borg	Spic	Han	Zen	P	Aut	Ful	4	Tim	Sp	35.9	L4IH	—	150	——	20x6.00B	20x6.00DB
La France Rep. D 2	*11500	1295	Lyc	L	6	3⅜x4½	242.0	27.3	65@2800	G	Per	Borg	Spic	Han	Zen	P	Aut	Ful	4	Tim	Sp	37.9	L4IH	—	162	——	20x6.00B	20x6.00DB
La France Rep. E 1	*13000	1985	Bud	L	6	3½x4½	260.0	29.5	69@2600	G	Per	Borg	Spic	Ross	Zen	Vac	Aut	Ful	4	Tim	Sp	47.0	L4IHV	578	162	5000	20x7.50	20x7.50D
La France Rep. F 3	*15000	2395	Lyc	L	6	3¾x4½	299.0	33.7	80@2500	G	Per	Ful	Spic	Ross	Zen	P	Aut	Ful	4	Tim	Sp	50.6	L4IHV-T	656	174	5625	34x7	34x7D
La France Rep. H 2	*16000	2985	Lyc	L	6	3⅞x5	354.0	36.0	85@2300	G	Per	Ful	Spic	Ross	Zen	P	Aut	Ful	4	Wis	2R	41.6	L4IHV	658	174	6370	34x7	34x7D
La France Rep. H 3	*18000	3395	Bud	L	6	4¼x4¾	393.0	42.1	94@2400	G	Per	Ful	Spic	Ross	Zen	P	Aut	Ful	4	Tim	2R	54.9	L4IHV-T	768	179	7450	20x9.75B	20x9.75DB
La France Rep. M 2	*20000	4000	Wak	L	6	4⅜x5½	462.0	46.0	97@2000	G	Per	Ful	Spic	Ross	Zen	P	Aut	Ful	5	Wis	2R	51.0	L4IHV	768	174	7500	36x8	36x8D
La France Rep. M 3	*22000	4750	Wak	L	6	4⅜x5½	462.0	46.0	97@2000	G	Per	Ful	Spic	Ross	Zen	P	Aut	Ful	5	Tim	2R	62.5	L4IHV-T	768	191	8300	20x10.50B	20x10.50DB
La France Rep. 35-2	*24000	5600	Wak	L	6	4½x5¾	549.0	48.6	98@1850	G	Own	Ful	Spic	Ross	Zen	P	Aut	Ful	4	Wis	2R	45.4	L4IHV	870	174	9250	38x9	38x9D
La France Rep. 35-3	*28000	6400	Wak	L	6	4⅝x5½	517.0	51.0	100@1800	G	Per	Ful	Spic	Ross	Zen	P	Aut	Ful	12	Tim	2R	111.5	W4IA-T	1054	191	10300	24x10.50B	24x10.50DB
La France Rep. Q 4	*30000	8500	Own	H	12	4 x5	754.0	76.7	240@2900	C	Own	Long	Bio	Ross	Zen	P	DR	Br-L	4	Tim	2R	Opt	W4IA	—	Opt	12750	24x10.50B	24x10.50DB
La France Rep. Q 6	*40000	11000	Own	H	12	4 x5	754.0	76.7	240@2900	C	Own	Long	Bio	Ross	Zen	P	DR	Br-L	4	Tim	4R	Opt	W6IA-T	—	Opt	14900	20x10.50B	20x10.50DB
††Mack B L	——	2500	Own	L	6	3¼x5	248.9	25.3	63@2800	G	Own	Own	Spic	Gem	Str	Vac	NE	Own	4	Tim	Sp	Opt	L4IH	302	142	*4450	22x9.75B	22x9.75B
††Mack B G	——	3000	Own	L	6	3⅝x5	309.6	31.5	75@2600	G	Own	Own	Spic	Own	Str	Vac	NE	Own	4	Own	Sp	Opt	O4IV	415	156	5200	20x6.00B	20x6.00DB
††Mack A B	——	4350	Own	L	6	4¼x5	283.7	28.9	60@2200	G	Own	Own	Spic	Own	Str	Gra	NE	Own	4	Own	2 R	Opt	O4IV	471	146½	7100	32x6	32x6D
Mack A B	——	4000	Own	L	4	4¼x5	283.7	28.9	60@2200	G	Own	Own	Spic	Own	Str	Vac	NE	Own	4	Own	Ch	Opt	O4IV	471	146½	6850	34x7	34x7D
Mack A B	——	4500	Own	L	6	3⅝x5	309.6	31.5	75@2600	G	Own	Own	Spic	Own	Str	Gra	NE	Own	4	Own	2 R	Opt	O4IV	471	146½	7050	34x7	34x7D
††Mack A B	——	4150	Own	L	6	3⅝x5	309.6	31.5	75@2600	G	Own	Own	Spic	Own	Str	Vac	NE	Own	4	Own	Ch	Opt	O4IV	471	146½	6850	34x7	34x7D
††Mack B C	——	5250	Own	L	6	4 x5½	417.7	38.4	100@2300	G	Own	Own	Spic	Own	Str	Vac	NE	Own	4	Own	2 R	Opt	O4IV	471	154	8350	34x7	34x7D
††Mack B C	——	5500	Own	L	6	4 x5½	417.7	38.4	100@2300	G	Own	Own	Spic	Own	Str	Vac	NE	Own	4	Own	Ch	Opt	O4IV	610	154	8500	36x8	36x8D
††Mack B J	——	6150	Own	L	6	4½x5½	525.2	48.6	126@2200	G	Own	Own	Spic	Own	Str	Vac	NE	Own	4	Own	2 R	Opt	O4IV	567	168½	10100	36x8	36x8D
††Mack A K	——	5150	Own	L	4	5 x6	471.2	40.0	77@1800	G	Own	Own	Spic	Own	Str	Gra	NE	Own	4	Own	Ch	Opt	O4IV	492	162	9800	36x8	36x8D
††Mack A K	——	5250	Own	L	4	5 x6	471.2	40.0	77@1800	G	Own	Own	Spic	Own	Str	Gra	NE	Own	4	Own	2 R	Opt	O4IV	492	162	9700	36x8S	38x8DS
††Mack A C	——	4950	Own	L	4	5 x6	471.2	40.0	77@1800	G	Own	Own	Spic	Own	Str	Gra	NE	Own	4	Own	Ch	Opt	OJXM	194	156	9500	36x8S	38x8DS
††Mack A K	——	6450	Own	L	6	4½x5½	525.5	48.6	126@2200	G	Own	Own	Spic	Han	Str	Vac	NE	Own	4	Own	2 R	Opt	O4IV	492	174	10950	36x8S	40x8DS
††Mack A C	——	5500	Own	L	4	5 x6	471.2	40.0	77@1800	G	Own	Own	Spic	Own	Str	Gra	NE	Own	4	Own	Ch	Opt	OJXM	194	156	10100	22x10.50B	22x10.50DS
††Mack A C	——	6550	Own	L	6	4½x5½	525.5	48.6	126@2200	G	Own	Own	Spic	Han	Str	Vac	NE	Own	4	Own	Ch	Opt	O4IV	492	174	11950	36x8S	40x8DS
††Mack A C	——	6000	Own	L	4	5 x6	471.2	40.0	77@1800	G	Own	Own	Spic	Own	Str	Gra	NE	Own	4	Own	Ch	Opt	OJXM	194	156	10450	24x10.50B	24x10.50DB
††Mack A P	——	9500	Own	L	6	5 x6	706.5	60.0	150@2000	G	Own	Own	Spic	Own	Str	Gra	NE	Own	4	Own	Ch	Opt	O2IV	287	191	12200	36x7S	40x7DS
††Mack A K 6—6 wheel	——	9500	Own	L	6	4½x5½	525.2	48.6	126@2200	G	Own	Own	Spic	Own	Str	Vac	NE	Own	4	Own	2 R	Opt	O6IA	574	152-52	16300	36x7S	40x8DS
††Mack A C 6 wheel	——	7650	Own	L	4	5 x6	471.2	40.0	77@1800	G	Own	Own	Spic	Own	Str	Gra	NE	Own	4	Own	Ch	Opt	ORIV	574	125-52	13800	9.75x22B	5.75x22DB
††Mack A C 6—6 wheel	——	9000	Own	L	6	4½x5½	525.2	48.6	126@2200	G	Own	Own	Spic	Own	Str	Vac	NE	Own	4	Own	Ch	Opt	O6IA	574	145-52	14950	36x6S	40x12H
Mack A P 6 wheel	——	11500	Own	L	6	5 x6	706.5	60.0	150@2000	G	Own	Own	Spic	Own	Str	Gra	NE	Own	4	Own	Ch	Opt	O6IA	574	145-52	15250	40x8	40x8D
††Mack A P 6 wheel	——	12000	Own	L	6	5 x6	706.5	60.0	150@2000	G	Own	Own	Spic	Own	Str	Gra	NE	Own	4	Own	2 R	Opt	O6IA	574	145-52	——	40x8	40x8D
Pierce-Arrow 13S	2	3150	Own	L	8	3½x5	385.0	39.2	125@2800	C	Long	Long	Cle	Han	Str	P	DR	Br-L	4	Tim	Sp	33.5	B4IM-T	399	160	6000	20x8.25B	20x8.25DB
Pierce-Arrow 12T	2-2½	2950	Her	L	6	4¼x4½	361.0	40.3	77@2400	G	Long	Long	Cle	Han	Zen	P	DR	Cla	4	Tim	Sp	34.3	B4IM	399	150	5625	20x7.50B	20x7.50DB
Pierce-Arrow 14T	2½	2950	Her	L	6	3¾x4½	298.0	33.7	70@2600	G	Long	Long	Cle	Han	Zen	P	DR	Cla	4	Tim	Sp	40.0	B4IM	399	150	5725	20x8.25B	20x8.25DB
Pierce-Arrow 15T	2½	3100	Her	L	6	4¼x4½	361.0	40.3	77@2400	G	Long	Long	Cle	Han	Zen	P	DR	Cov	4	Tim	Sp	34.4	B4IM	399	180	5800	20x8.25B	20x8.25DB
Pierce-Arrow 18W	3-4	4100	Her	L	6	4¼x4½	361.0	40.3	77@2400	G	Long	Long	Cle	Han	Zen	P	DR	Cov	4	Tim	Wo	41.9	B4IA-T	473	150	6860	20x9.00B	20x9.00DB
Pierce-Arrow 18R	3-4	4500	Her	L	6	4⅜x4¾	428.0	46.0	94@2200	G	Long	Long	Cle	Han	Zen	P	DR	Br-L	4	Tim	Wo	28.6	B4IA	473	150	6860	20x9.00B	20x9.00DB
Pierce-Arrow 21R	3½	4700	Her	L	6	4½x5¼	501.0	48.6	110@2200	G	Long	Long	Cle	Han	Zen	P	DR	Br-L	4	Tim	Wo	36.0	B4IA	473	150	7050	20x9.75B	20x9.75DB
Pierce-Arrow 24X	4-5	5400	Her	L	6	4½x5¼	501.0	48.6	110@2200	G	Long	Long	Spic	Ross	Str	P	DR	Own	4	Own	Wo	39.9	T4IA-T	618	150	9250	20x10.50B	20x10.50DB
Pierce-Arrow 24M	4-5	6450	Her	L	6	4¾x5¾	611.0	54.1	130@2000	G	Long	Long	Spic	Ross	Str	P	DR	Own	4	Own	Wo	39.9	T4IA-T	618	150	10200	20x10.50B	20x10.50DB
Pierce-Arrow 28X	5½	6000	Her	L	6	4½x5¼	501.0	48.6	110@2200	G	Long	Long	Cle	Han	Zen	P	DR	Cov	4	Own	Wo	53.0	TO4IA	720	160	10675	24x10.50B	24x10.50DB
Pierce-Arrow 28M	5½	6900	Her	L	6	4¾x5¾	611.0	54.1	130@2000	G	Long	Long	Spic	Ross	Str	P	DR	Own	4	Own	Wo	52.5	TO4IA	720	160	11600	24x10.50B	24x10.50DB
Pierce-Arrow 28Y	5½	5850	Her	L	6	4¾x4¾	479.0	51.3	104@2200	G	Long	Long	Cle	Han	Zen	P	DR	Cov	4	Own	Wo	53.0	TO4IA	720	160	10675	24x10.50B	24x10.50DB
Pierce-Arrow 34K	5½	——	Her	L	6	4¾x5¾	611.0	54.1	130@2000	G	Long	Long	Spic	Ross	Str	P	DR	Own	4	Own	Wo	42.0	TO4IA	720	170	11675	24x10.50B	40x8DS
Pierce-Arrow 75M	75000	8000	Her	L	6	5¼x6	779.0	66.1	150@1800	G	Long	Long	Spic	Ross	Str	P	DR	Own	4	Own	Wo	51.9	TO4IA	720	190	12750	24x10.50B	24x10.50DB
Pierce-Arrow 24T	*24000	3200	Her	L	6	4½x4½	36.10	40.3	77@2400	G	Long	Long	Cle	Han	Zen	P	DR	Cov	4	Tim	Sp	48.1	B4IM	399	150	5725	20x8.25	20x8.25D
Pierce-Arrow 35R	*35000	4800	Her	L	6	4⅜x4¾	428.0	46.0	94@2200	G	Long	Long	Cle	Han	Zen	P	DR	Br-L	4	Tim	Wo	47.8	B4IA	473	150	7050	20x9.75	20x9.75D
Pierce-Arrow 45X	*45000	6200	Her	L	6	4½x5¼	501.0	48.6	110@2200	G	Long	Long	Cle	Han	Zen	P	DR	Cov	4	Tim	Wo	57.2	T4IA	618	160	9300	20x10.50	20x10.50D
Pierce-Arrow 34L	*34000	——	Her	L	6	4½x5¼	501.0	48.6	110@2200	G	Long	Long	Cle	Han	Zen	P	DR	Cov	4	Tim	Wo	49.0	T6IA	1022	200	13200	20x9.75	20x9.75D
Pierce-Arrow 44K	*44000	——	Her	L	6	5¼x6	779.0	66.1	150@1800	G	Long	Long	Spic	Ross	Str	P	DR	Own	4	Tim	Wo	47.2	T6IA	1022	200	14500	20x10.50	20x10.50D
Pierce-Arrow 34K	*34000	——	Her	L	6	4¾x5¾	611.0	54.1	130@2000	G	Long	Long	Spic	Ross	Str	P	DR	Own	4	Tim	Wo	40.6	T6IA	1022	200	14200	20x9.75	20x9.75D
Reo 1 A	1½	625	Own	L	4	3⅛x4½	205.0	23.3	51@2500	G	Per	Long	Cle	Ross	Zen	P	DR	Cla	4	Cla	Sp	37.1	L4IH	230	136	2930	20x6.00	32x6
Reo 1 B	1½	725	Own	L	6	3⅜x4	214.7	27.3	61@3000	G	Per	Long	Cle	Ross	Zen	P	DR	Cla	4	Cla	Sp	33.6	L4IH	230	136	2970	20x6.00	32x6
Reo 1 C	1½	665	Own	L	4	3⅛x4½	205.0	23.3	51@2500	G	Per	Long	Cle	Ross	Zen	P	DR	Cla	4	Cla	Sp	37.1	L4IH	230	160	3020	20x6.00	32x6
Reo 1 D	1½	765	Own	L	6	3⅜x4	214.7	27.3	61@3000	G	Per	Long	Cle	Ross	Zen	P	DR	Cla	4	Cla	Sp	37.1	L4IH	230	160	3060	20x6.00	32x6
Reo D F X	1½	1095	Own	L	6	3⅜x5	268.3	27.3	85@3200	C	Own	Long	Cle	Ross	Sch	Vac	DR	Own	4	Own	Sp	34.1	L4IH	289	135	3200	20x6.00	20x6.00
Reo F A X	2	1295	Own	L	6	3⅜x5	268.3	27.3	70@2800	C	Own	Br-L	Cle	Ross	Sch	Vac	DR	Own	4	Own	Sp	34.3	L4IH	289	137	3525	20x6.00	32x6
Reo F E X	2	1395	Own	L	6	3⅜x5	268.3	27.3	70@2800	C	Own	Br-L	Cle	Ross	Sch	Vac	DR	Own	4	Own	Sp	34.3	L4IH	289	152	3200	20x6.00	32x6
Reo F F X	2	1395	Own	L	6	3⅜x5	268.3	27.3	70@2800	C	Own	Br-L	Cle	Ross	Sch	Vac	DR	Own	4	Own	Sp	34.3	L4IH	289	156	3525	20x6.00	32x6
Reo F H X	2½	1595	Own	L	6	3⅜x5	268.3	27.3	70@2800	C	McC	Br-L	Cle	Ross	Sch	Vac	DR	Own	4	Own	Sp	37.7	L4IH	289	142	3750	32x6	32x6D
Reo F C X	2½	1645	Own	L	6	3⅜x5	268.3	27.3	70@2800	C	McC	Br-L	Cle	Ross	Sch	Vac	DR	Own	4	Own	Sp	37.7	L4IH	289	152	4165	32x6	32x6D
Reo F D X	2½	1745	Own	L	6	3⅜x5	268.3	27.3	70@2800	C	McC	Br-L	Cle	Ross	Sch	Vac	DR	Own	4	Own	Sp	37.7	L4IH	289	168	4075	32x6	32x6D
Reo G A	3	2035	Own	L	6	3⅜x5	268.3	27.3	70@2800	C	McC	Br-L	Cle	Ross	Sch	Vac	DR	Own	4	Own	Sp	40.5	L4IH-T	344	163	4625	32x6	32x6D
Reo G C	3	2140	Own	L	6	3⅜x5	268.3	27.3	70@2800	C	McC	Br-L	Cle	Ross	Sch	Vac	DR	Own	4	Own	Sp	40.5	L4IH-T	344	179	4850	32x6	32x6D
Reo G D	3	2085	Own	L	6	3⅜x5	268.3	27.3	70@2800	C	McC	Br-L	Cle	Ross	Sch	Vac	DR	Own	4	Own	Sp	78.1	L4IH-T	344	144	4650	32x6	32x6D
Reo G C S	3	2375	Own	L	6	3⅜x5	268.3	27.3	70@2800	C	McC	Br-L	Cle	Ross	Sch	Vac	DR	Own	4	Own	Sp	40.5	L4IH	344	210	5300	32x6	32x6D
Reo 4-H	4	2800	Own	L	6	4⅛x4⅜	381.0	40.8	101@2600	G	McC	Long	Cle	Ross	Sch	P	DR	Own	4	Cla	Sp	42.4	L4IHV-T	390	150	6150	8.25x20	9.00x20B
Reo 4-J	4	2875	Own	L	6	4⅛x4⅜	381.0	40.8	101@2600	G	McC	Long	Cle	Ross	Sch	P	DR	Own	4	Cla	Sp	42.4	L4IHV-T	390	170	6280	8.25x20	9.00x20B
Reo 4-K	4	2950	Own	L	6	4⅛x4⅜	381.0	40.8	101@2600	G	McC	Long	Cle	Ross	Sch	P	DR	Own	4	Cla	Sp	42.4	L4IHV-T	390	190	6395	8.25x20	9.00x20B
Stewart 30	1	695	Lyc	L	4	3¾x4½	199.0	22.5	50@2600	G	Fed	Borg	Spic	Ross	Str	P	DR	W-G	4	Sal	Sp	35.1	B4IM	257	130	*3158	20x6.50	20x6.50
Stewart 30 X	1	795	Lyc	L	6	3 x4¾	201.5	23.8	60@2800	G	Fed	Borg	Spic	Ross	Str	P	DR	W-G	4	Sal	Sp	35.1	B4IM	257	130	3199	20x6.50	20x6.50
Stewart 42X	1½	795	Lyc	L	6	3¼x4½	224.0	25.3	62@2600	—	Fed	—	—	—	Zen	—	—	—	—	Cla	—	—	—	—	134	3250	20x6.50	20x6.50
Stewart 40 X A	1½	995	Lyc	L	6	3¼x4½	224.0	25.3	62@2600	G	Fed	Borg	Spic	Ross	Zen	P	DR	W-G	4	Sal	Sp	35.1	B4IM	257	145	3574	20x6.50	20x6.50D
Stewart 50X	2	1195	Lyc	L	6	3⅜x4½	242.0	27.3	65@2800	G	Fed	Borg	Spic	Ross	Zen	P	DR	W-G	4	Cla	Sp	35.1	B4IM	257	145	4165	20x6.50	20x6.50DB
Stewart 43X	2	995	Lyc	L	6	3¼x4½	241.0	27.3	62@2800	—	—	—	—	Ross	—	—	DR	—	4	—	Sp	—	B4	—	145	4005	20x6.50	20x6.50DB
Stewart 29 X S	2	1695	Lyc	L	6	3¾x4½	298.0	33.7	85@2750	G	Fed	Ful	Spic	Ross	Str	P	DR	Ful	4	Cla	Sp	44.1	B4IM	307	145	5194	20x7.00	20x7.00D
Stewart 32 X	2½	1990	Lyc	L	6	3¾x4½	298.0	33.7	85@2750	G	Fed	Ful	Spic	Ross	Str	P	DR	Ful	4	Cla	Sp	46.1	B4IM	348	165	6552	20x7.00	20x7.00D
Stewart 58-8	2½	2390	Lyc	L	8	3⅜x4½	322.0	36.5	100@2800	G	Fed	Ful	Spic	Ross	Str	P	DR	Ful	4	Cla	Sp	46.1	B4IM	*348	170	6170	20x7.50	20x7.50DB
*Stewart 18 X	3	2690	Lyc	L	6	3⅞x5	310.0	36	85@2750	G	Fed	Ful	Spic	Ross	Str	P	DR	Ful	4	Tim	Wo	48.1	B4IM	452	165	6245	20x7.50	20x7.50D
Stewart 48-8	3	2990	Lyc	L	8	3¾x4¾	420.0	45.0	130@2800	G	Fed	Br-L	Spic	Ross	Str	P	DR	Br-L	4	Cla	Sp	46.1	B4MV	348	170	6750	8.25x20B	8.25x20DB
Stewart 19 X	3½	3690	Lyc	L	6	3⅞x5	354.0	36.2	90@2750	G	Fed	Ful	Spic	Ross	Str	P	DR	Ful	12	Tim	Wo	105.1	B4IM	452	165	7474	20x9.00	20x9.00D
Stewart 38-8	3½	3990	Lyc	L	8	3¾x4¾	462.0	45.0	130@2800	G	Fed	Borg	Spic	Ross	Str	P	DR	Br-L	12	Tim	2R	105.1	B4IMV	452	170	7964	20x9.00	20x9.00D
Stewart 38-6	3½	3990	Wak	L	6	4⅜x5½	420.0	45.9	100@2000	G	Fed	Borg	Spic	Ross	Str	P	DR	Br-L	12	Tim	2R	105.1	B4IMV	452	170	7964	20x9.00	20x9.00D
Stewart 31 X	5	5190	Wak	L	6	4⅜x5½	516	51.2	110@2000	G	Mod	Br-L	Spic	Ross	Str	P	DR	Br-L	12	Tim	Wo	105.1	B4IMV	564	165	9885	20x9.75	20x9.75D
Stewart 27 X S	7	6190	Wak	L	6	4⅜x5½	516	51.2	110@2000	G	Mod	Br-L	Spic	Ross	Str	P	DR	Br-L	12	Tim	Wo	105.1	W4I	759	165	10762	24x10.50	24x10.50D
Studebaker	1½	670	Own	L	6	3¼x4⅝	230.2	25.4	75@3200	—	McC	Long	Spic	Ross	Str	P	DR	WG	4	Cla	Sp	36.2	B4IM	231	130	3110	20::6.00	32x6
Studebaker	1½	695	Own	L	6	3¼x4⅝	230	25.4	75@3200	——	McC	Long	Spic	Ross	Str	P	DR	W-G	4	Cla	Sp	36.2	B4IM	231	141	3165	20x6.00	32x6
Studebaker	1½	745	Own	L	6	3¼x4⅝	230.2	25.4	75@3200	—	McC	Long	Spic	Ross	Str	P	DR	WG	4	Cla	Sp	36.2	B4IM	231	165	3225	20x6.00	32x6
Studeba

Model Reduction Plan Gains Dealer Support

(Continued from Page 1)

in this case by writing your opinion to Automotive Daily News, so that your sales manager may come to this meeting on May 10 armed with your own views of these two problems now facing the industry. Do not wait for your factory sales manager to tell you which is best; he is anxious to receive your opinions, to be used as a guide in voting in the best interest of the industry as a whole.

Dealers and distributors are agreed that, in either case, the success of the two proposals will depend largely upon whether or not all companies agree to the new plan and give them their hearty support. An expression of dealer and distributor opinion one way or the other may have much influence upon the decision reached by the sales managers in conference.

Opinions of dealers and distributors in the cities of St. Louis and Chicago, as summarized by Automotive Daily News correspondents in those cities, are as follows:

By WALTER BERMINGHAM

Chicago, May 5.—Favorable reaction was expressed here in dealer and distributor circles toward a manufacturer proposal of cutting down the number of models produced. Several advantages have been cited in support of such a plan aside from securing greater factory economy and paving the way toward reduced motor car prices.

From the dealer and distributor standpoint particularly, it is stated that the necessity of carrying too large inventories will be eliminated and that there will be less confusion in selecting a particular type of chassis and body on the part of purchasers.

Leaders in the trade who were interviewed contend in the matter of body styles that records show which are most in demand and that only the most popular types should be carried on showroom floors. They feel that the buying public can be readily educated in specifying such styles with the result that few if any sales will be lost through abandoning those rarely called for.

Those in the trade here feel a policy of greater concentration and specialization would be a wholesome move on the part of manufacturers and would make possible a better brand of salesmanship among dealers and distributors.

On the subject of advertising, rather than factory prices of cars, there is a tendency to be noncommital or withhold comment at this time. In the past distributors and dealers for only a few makes have pursued such a policy and they have not followed it over any considerable period. A rather common practice in Chicago is to advertise factory prices and show delivered prices in distributor and dealer salesrooms by means of cards or tags on each car with various items listed.

By LES HARRISON

St. Louis, Mo., May. 5.—Automobile dealers of this city are unanimously in favor of advertising delivered prices of motor cars and the reduction to a minimum of the number of models.

A concensus of distributing dealers here, representing all leading makes of automobile, revealed 100 per cent. eagerness to follow the plan.

One sales manager declared that the reduction in the number of models would benefit both manufacturer and dealer, as it would cut the investment of stock on hand and clarify the sales quotations to the prospect.

"I will even say that I believe fifteen models would be sufficient for any make car," the sales manager continued. "It would not reduce sales, and, with full liberty in regard to color combinations, the idea would be beneficial."

Concentration on fewer models would actually stimulate sales, another sales manager declared.

"Such a move," he said, "would help sales by making less complicated the burden on both dealer and prospect. The salesman could thus concentrate on the fewer models with more ease."

By advertising delivered price, one dealer said, a more confident relation would be established between salesman and prospect.

"Low f. o. b. prices attract, there is no doubt," he said, "but the public does not react favorable to various delivered prices. It would eliminate padding delivery prices and help to establish fair competition."

Straightforward sales would be the result, another dealer remarked. "This is no time to juggle the public's good will," he continued. "Prospects like to know where they stand in buying a car. Frequently they are attracted by low price, to find the actual cost far above the amount they had planned to spend."

A leading small car dealer did not believe the advertising of delivered price would stimulate sales in his field, but would merely tend to establish a better relation with the customer.

UNIVERSAL CREDIT CO. TO ADD NEW BRANCHES

Detroit, May 5.—Universal Credit Company, authorized Ford finance company, will open new branch offices in Los Angeles and San Francisco this month, bringing its number of branches to thirty-three which serve nearly 8,000 dealers in forty-three states.

FINANCIAL NEWS

KELLY-SPRINGFIELD

New York, May 5.—Substantial deposits of Kelly-Springfield Tire Company stock have already been made with the Central Hanover Bank and Trust Company in response to recently announced plans of capital readjustment, it was announced last night by William H. Lalley, president, who added that the final date for acceptance of deposits is May 16.

The plan includes exchange of the present 6 per cent. preferred stock for new 6 per cent. ten-year notes, plus two shares of new common; one share of new $6 preference stock (redeemable at $102.50), plus three shares of new common for each share of old 8 per cent. preferred, and one share of the new common at $5 par value for each two shares of the old no par stock.

THERMOID RUBBER

Trenton, May 5.—Thermoid Company and wholly owned subsidiaries reports for the quarter ended March 31 net loss after all expenses, interest, depreciation and other charges of $106,685, against $101,679 loss last year. First quarter operations of the Southern Asbestos Company, a 95 per cent. owned subsidiary, resulted in a net loss after depreciation and all charges of $12,304, against $5,702 loss in first quarter a year ago.

HUDSON MOTOR CAR

Detroit, May 5.—Hudson Motor Car Company reports for the quarter ended March 31 net loss after depreciation, taxes and other charges of $1,245,943, contrasted with net income of $226,395, equal to 14 cents a share on 1,596,660 no par shares of stock last year.

COLUMBIAN CARBON

New York, May 5.—Columbian Carbon reports its preliminary estimate of earnings for the first quarter profit equal to more than 50 cents a share on 538,420 outstanding shares of no par capital stock after charging 65 cents a share for depreciation and depletion is indicated. In the first quarter of 1931 the company reported net income of $560,501, or $1.04 a share, on 536,395 shares.

BABCOCK & WILCOX, LTD.

London, May 5.—Report of Babcock & Wilcox, Ltd., for year ended December 31, 1931, shows net profit of £549,783 after depreciation, reserve for income taxes, directors' fees, etc., and after contribution to staff pension fund amounting to £19,837. There has been transferred from the reserve fund £400,000 to be available as a special resrve for depreciation on investments, depreciation on capital employed abroad and other contingencies. For year ended December 31, 1930, company reported net profit of £590,705 after depreciation, taxes, etc.

MARLIN-ROCKWELL

New York, May 5.—Marlin-Rockwell Corporation and subsidiaries reports for the quarter ended March 31 net loss after depreciation and other charges of $2,720, against net profit of $119,919, equal to 33 cents a share on 364,145 no par shares last year.

UNITED CARBON

New York, May 5.—United Carbon Company and subsidiaries reports for the quarter ended March 31 profit after depreciation and depletion but before Federal taxes of $61,637, against $22,257 profit last year.

LANDIS MACHINE

Waynesboro, Pa., May 5.—Landis Machine has passed the dividend on the $25 par common stock, on which the company previously paid 50 cents February 15, 1932.

PENDER JOINS ALLBESTOS SALES IN CHICAGO AREA

Philadelphia, May 5.—Joe Pender has been added to the Allbestos Corporation's sales organization. C. A. Grainger, general sales manager of Allbestos Corporation, reports that Pender will work in the North Central states and make his headquarters in Chicago.

Major Specifications and Mechanical Details of 1932 Commercial Cars

LEADING MAKES NATIONALLY DISTRIBUTED

(Continued from Page 10)

Make and Model	Capacity—Tons or Lbs.	Chassis Price	Engine	Valve Arr'g'm't	No. of Cyls.	Bore and Stroke	Piston Disp.	Tax H. P.	Max. Brake H. P. and Peak R. P. M.	Type Camshaft Drive	Radiator Make	Clutch Make	Universals Make	Steering Gear Make	Carburetor Make	Fuel Feed Type	Make Electr'l System	Transmission Make	No. Spds. For.	Rear Axle Make	Rear Axle Type	Final Drive	Final Gear Reduction	Type Service Brakes	Area Service Brake Lining	Standard Wheel Base	Chassis Wgt.	Standard Tire Sizes Front	Standard Tire Sizes Rear
White 630 A	*22000	5000	Own	H	6	4 x5¼	396.0	38.4	100@2100	C	Own	Own	Spic	Ross	Zen	P	DR	Own	4	Own	Sp	41.4	L4IHV	553	168	8500	20x9.00B	20x9.00DB
White 641	*24000	6450	Own	H	6	4⅜x5¾	519.0	45.9	108@1800	C	Own	Own	Spic	Ross	Zen	P	L-N	Own	4	Own	2R	46.9	O4IA	585	180	9700	20x9.75B	20x9.75DB
*White 630 SW200	*24000	6280	Own	H	6	4 x5¼	396.0	38.4	82@1800	C	Own	Own	Spic	Ross	Zen	P	DR	Own	4	Tim	Wo	44.2	OT1HV	514	193	10000	20x8.25B	20x8.25DB
White 631	*24000	5750	Own	H	6	4 x5¼	396.0	38.4	82@1800	C	Own	Own	Spic	Ross	Zen	P	DR	Own	4	Own	2R	56.9	O4IHV	585	168	9000	20x9.25B	20x9.25DB
*White 642 SW310	*34000	8045	Own	H	6	4⅜x5¾	519.0	45.9	108@1800	C	Own	Own	Spic	Ross	Zen	P	L-N	Own	4	Tim	Wo	55.6	OT1A	588	198	12670	20x9 00B	20x9 00DB
White 58 SS	*30000	5300	Own	L	4	4¼x5¾	326.0	28.9	54@1600	G	Own	Own	Spic	Ross	Zen	P	L-N	Own	4	Own	Wo	77.6	OPXM	224	196	9300	24x10.50B	24x10.50DB
White 643	*32000	6950	Own	H	6	4⅜x5¾	519.0	45.9	108@1800	C	Own	Own	Spic	Ross	Zen	P	L-N	Own	4	Own	2R	66 5	O4IA	623	180	10900	24x10.50B	24x10.50DB
White 642	*28000	6750	Own	H	6	4⅜x5¾	519.0	45.9	108@1800	C	Own	Own	Spic	Ross	Zen	P	L-N	Own	4	Own	2R	66.5	O4IA	623	180	10600	24x9.75B	24x9 75DB
*White 643 SW410	*40000	8570	Own	H	6	4⅜x5¾	519.0	45.9	108@1800	C	Own	Own	Spic	Ross	Zen	P	L-N	Own	4	Tim	Wo	69 1	OT1A	588	198	14400	40x8	40x8D
Willys-Overland 6-C-113	½	415	Own	L	6	3¼x3⅞	193.0	25.3	65@3400	C	Fed	Own	Spic	Own	Til	P	Aut	Own	3	Own	Sp	12.4	B4IM	143	113	19..	30x5.50	32x6
Willys-Overland 6-C-131	1½	595	Own	L	6	3¼x3⅞	193.0	25.3	65@3400	C	Fed	Own	Spic	Own	Til	P	Aut	W-G	4	Cla	Sp	40.8	B4IM	235	131	2625	20x5.50	32x6
WillysOverland 6-C-157	1½	635	Own	L	6	3¼x3⅞	193.0	25.3	65@3400	C	Fed	Own	Spic	Own	Til	P	Aut	V. G	4	Cla	Sp	40 8	B4IM	235	157	2900	19x5.00	19 x5.00

GENERAL NOTATIONS

***†REFERENCE MARKS** apply to individual lines only and explanations are given under the subdivision for each company in the "SPECIAL NOTATIONS."

CAPACITIES given in this table are in tons or fractions of tons. *Shows maximum allowable gross weight in pounds.

ENGINE—Bud, Buda; Con, Continental; Her, Hercules; Lyc, Lycoming; Pont, Pontiac; Wak, Waukesha; Wis, Wisconsin; Hall, American Car & Foundry; Ster, Sterling Engine Co.

VALVE ARRANGEMENT—L, "L" head; H, in head; O, overhead; S, sleeve.

TYPE OF CAMSHAFT DRIVE—G, ..r; C, chain.

RADIATOR MAKE—G&O, G & O Mfg Co.; Per, Perfex Corp.; Long, Long Mfg Co.; Har, Harrison Radiator Corp.; Fed, Fedders Mfg Co.; McC, McCord Radiator & Mfg Co.; Mod, Modine Mfg Co.; Hex, Hexcel Radiator Co. Yo-Young.

CLUTCH MAKE—Jon, Jones Clutch & Gear Co.; Ful, Fuller & Sons Mfg. Co.; Borg, Borg & Beck Co.; Br-L, Brown Lipe Gear Co.; Rock, Rockford Drill & Machine Co.; Cov, Covert Gear Co.; Long, Long Mfg. Co.; Detr, Detroit Gear & Machine Co.; Mer, Merchant & Evans; Hel, Merchants & Evans.

UNIVERSALS MAKE — Spic, Spicer Mfg Co.; Blo, Blood Bros. Machine Co.; Sup, Superior Universal Products; Un, Universal Products Co.; Cle, Cleveland Steel Products Corp.; Pet, Peters; Opt, optional; Mec, Mechanics Machine Co.

STEERING GEAR MAKE—Ross, Ross Gear & Tool Co.; Han, Hannum Mfg. Co. Sag, Saginaw Steering Gear Co.; Gem, Gemmer Mfg. Co.; Col, Columbus Gear Pump Co.; W-G, Warner Gear Corp.

CARBURETOR—Car, Carter; Mar, Marvel; Sch, Wheeler-Schebler; Str, Stromberg; DL, Detroit Lubricator; Til, Tillotson; Zen, Zenith-Detroit.

FUEL FEED—Gra, gravity; Vac, vacuum tank, P, fuel pump.

ELECTRICAL SYSTEM — AB, American-Bosch; Aut, Electric Auto-Lite; Eis, Eisemann; L-N, Leece-Neville; NE, North East; RB Robert Bosch; DR, Delco-Remy.

TRANSMISSION—Br-L, Brown-Lipe; Cov, Covert; Ful, Fuller; Mec, Mechanics Machine; Mun, Muncie; W-G, Warner Gear; Cot, Cotta Gear Co.; Cla, Clark Equipment Co.

REAR AXLE—Cla, Clark Equipment; Col, Columbia; Eat, Eaton; Pont, Pontiac; Sal, Salisbury; Tim, Timken; Wis, Wisconsin.

FINAL DRIVE—IG, internal gear; St, straight bevel; Sp, spiral bevel; Wo, worm; 2R, double reduction; Ch, chain; S-T, semi-transverse.

TYPE OF SERVICE BRAKES—

B4IM, Bendix, 4 wheel, internal mechanical; B4MV, Bendix, 4 wheel, mechanical, vacuum; B6IA, Bendix, 6 wheel, internal, air; B4IMV, Bendix, 4 wheel, internal, mechanical, vacuum; BO4IMV, Bendix, own, 4 wheel, internal, mechanical, vacuum; BrIA, Bendix, operating on 4 rear wheels, internal air; BW4IM, Bendix front, Wisconsin rear, 4 wheel, internal, mechanical; BE4IM, Bendix front, Eaton rear, 4 wheel, internal, mechanical; B4IH, Bendix, 4 wheel, internal, hydraulic.

CB4IM, Columbia, Bendix, 4 wheel, internal, mechanical; C4IM, Columbia, 4 wheel, internal, mechanical; K2IM, Clark, 2 wheel, internal, mechanical; CR4IA, Christensen-Relay, 4 wheel internal, air.

L4IHVA, Lockheed, 4 wheel, internal, hydraulic, vacuum, air; LO4ID, Lockheed, own, 4 wheel, internal, drive shaft; LO4IV, Lockheed, own, 4 wheel, internal, vacuum; LT4DV, Lockheed, Timken, 4 wheel, drive shaft, vacuum; L4IH, Lockheed, 4 wheel, internal, hydraulic; L4IHA, Lockheed, 4 wheel, internal, hydraulic, air; L4IHV, Lockheed, 4 wheel, internal, hydraulic, vacuum; LT4IHV, Lockheed, Timken, 4 wheel, internal, hydraulic, vacuum LT4IVA, Lockheed, Timken, 4 wheel, internal, vacuum, air; L6IHV, Lockheed, 6 wheel, internal, hydraulic, vacuum; L6IH, Lockheed, 6 wheel, internal, hydraulic.

O2IM, Own, 2 wheel, internal, mechanical; O2IV, Own, 2 wheel, internal, vacuum; O4IA, Own, 4 wheel, internal, air; O4IH, Own, 4 wheel, internal, hydraulic; O4IHV, Own, 4 wheel internal, hydraulic, vacuum; O4IM, Own, 4 wheel, internal, mechanical; O4IV, Own, 4 wheel, internal, vacuum; O4M, Own, 4 wheel, mechanical; O2XM, Own, 2 wheel, external, mechanical; O4XM, Own, 4 wheel external, mechanical; O6IA Own, 6 wheel, internal, air; OJXM, Own, jack shaft, external, mechanical; OL4IHV, Own, Lockheed, 4 wheel, internal, hydraulic, vacuum; OPX, Own, propeller shaft, external; OPXM, Own, propeller shaft, external, mechanical; OPM, Own, propeller shaft, mechanical; ORIV, Own, rear wheels, internal, vacuum; OTIHV, Own Timken, internal, hydraulic, vacuum.

S4IM, Steeldraulic, 4 wheel, internal, mechanical.

T4rIA, Timken, operating on 4 rear wheels, internal, air; T4IA, Timken, 4 wheel, internal, air; T6IA, Timken, 6 wheel, internal, air; T2IMV, Timken, 2 wheel, internal, mechanical, vacuum.

W4I, Westinghouse, 4 wheel, internal, W4IA, Westinghouse, 4 wheel, internal, air; W6IA, Westinghouse, 6 wheel, internal, air; 4IA, 4 wheel, internal, air; 4IH, 4 wheel, internal, hydraulic; 4M, 4 wheel, mechanical.

-T, Tru-stop. *Models on which Tru-stop is optional.

WHEEL BASES given are standard, but optional wheel bases are available in many cases.

***CHASSIS WEIGHT** according to Automotive Daily News formula, which is the chassis with gas, oil, water and spare tire, but without cab or other equipment.

TIRES—B, balloon; D, dual; S, solid; P, pneumatic.

SPECIAL NOTATIONS

AUTOCAR

†Engines in these models are located under the driver's seat.

*Six-wheeler.

Model R also available on 171 and 189 inches wheel base.

BROCKWAY

*Models equipped with twin ignition.

CHEVROLET

Utility model available on 131-inch wheel base with chassis weight of 2,760 pounds and equipped with dual rear wheels.

DIAMOND T

*Six-wheelers.

Additional standard wheel bases available as follows:—

551	158	750	167, 192
504	166½	801	180½, 199¼
506	174	1200	174½, 180
603	157, 170	1600	174½, 180
606	177½	1601	184

DODGE

*Models F40, F41, F61 and F62 can be had with double drop frame.

FEDERAL

*Six-wheelers.

*Also rated in pounds of total allowable weight as follows:

D 3	8500	T 10 W	18,000
E 3	8,500	T 10 D R	18,000
F 7	10,000	U 6	21,000
F 8	11,500	U 6 D R	21,000
A 6	13,500	A 6 S W	18,500
A 6 T	15,000	C 7	24,000
A 6 T W	15,000	C 7 W	24,000
T 3 W	14,000	C 8	24,000
T 8 W F	15,000	C 8 W	24,000
D 2 S W	12,500	X 8	30,000
E 2 S W	12,500	X 8 D R	30,000
D 2 D	12,500	X 8 R	30,000
2 E D	12,500	X 8 R D R	30,000
T 10 B	18,000		

†Both the four and six cylinder are also offered in 157-inch wheel base at $1,145 and $1,345, respectively.

GENERAL MOTORS TRUCK

*Capacity indicated is the Shraight Rating (combined weight of chassis body, equipment and pay load) for which each chassis is designed and guaranteed to satisfactorily operate under average conditions. The size of the tires used does not affect this Straight Rating, but to secure maximum tire mileage it is suggested that the total gross weight be limited to a "recommended gross weight" for each tire equipment based on tire capacity. Prices cover base chassis and vary with wheel base and tire combinations. The number of wheel base lengths, tire types, range of "recommended gross weights" and resulting pay load range (assuming nominal body allowance) for each model follows:—

Note: Models T-15 to T-61, inclusive, are available for export only as coach chassis.

Model	Wheel Bases	Tire Types	Range of "Rec. Gross Weights"	Pay Load Range
T-11	1	1	3800	½
T-15	3	10	4500- 6500	½-1½
T-18	..	..	7500- 8200	1½-2
T-19	3	..	7500-10000	1½-2½
T-25	3	17	6800- 9000	1½-2
T-26	4	..	8500-11000	2-3
T-30	3	15	10000-12500	2-3
T-31	4	..	11000-14000	2½-4
T-42	4	12	12000-15000	2½-4
T-44	4	12	12000-16000	3-4½
T-45	4	..	13500-16000	3-4½
T-51	4	..	16500-19000	4-5½
T-60	4	18	18500-22000	5-6½
T-61	4	..	19500-22000	5-6½
T-82	4	12	19000-24000	5-7
T-83	4	..	20000-24000	5-7
T-85	3	..	25000-30000	6-8
T-90	3	7	22000-28000	5-7½
T-95	3	..	30000-40000	7-11

Optional rear axle gear ratios available for all models, except Model T-16. Double reduction axles available for Models T-45, T-51, T-60, T-61, T-82, T-83 and T-95.

GRAMM

Series	Straight Rating	Wheel Base	Pay Load Range
AX 4	8,000	157	1 to 1½ tons
AX 6	8,000	157	1 to 1½ tons
BX 4	10,000	157	1½ to 2 tons
BX 6	10,000	157	1½ to 2 tons
CX 4	12,000	157-180	2 to 3 tons
CX 6	12,000	157-180	2 to 3 tons
B	12,000	157-174	1¾ to 2½ tons
C	14,000	145-196	2 to 3 tons
D	17,000	145-196	2½ to 4 tons
E	20,000	145-224	3 to 4½ tons
EV	.....	.....	3 to 4 tons
G	24,000	165-235	4 to 6 tons
G S	24,000	165-235	4 to 6 tons
GY	.....	.....	4 to 5 tons
GW	28,000	157-240	5 to 7½ tons
HY	.....	.....	5 to 6½ tons

†Both the four and six-cylinder are also offered in 157-inch wheel base at $1,145 and $1,345, respectively.

INDIANA

*Six-wheelers.

INTERNATIONAL

*Stromberg carburetor optional.

MACK

Other wheel bases furnished on all truck models.

On 6-wheel jobs 4 rear wheels driven by chains, foot brake on 4 rear wheels.

††Made also in tractor models.

PIERCE-ARROW

*Optional final drive on Models PW, PX, PY and PZ.

REO

Models DF, FA, FE and FF are available with dual wheels at additional cost.

*Model DF X can be had with 3 speed transmission and single tires for $895.

STEWART

Models 30 and 30X can also be supplied in 120, 140 and 160-inch wheel base.

Models 40XA can also be supplied in 134, 145, 160 and 176-inch wheel base.

Model 29XS can be supplied in 135, 160, 176 and 190-inch wheel base.

*Models 18X and 32X can be supplied in 148, 190 and 220-inch wheel base.

*Models 19X, 31X and 27XS can be supplied in 148, 172, 190, 220 and 235-inch wheel base.

As optional equipment Models 18X, 19X, 31X and 27XS can be supplied with Timken dual reducion rear axle.

Models 38-8, 38-6, 48-8 and 58-8 can be supplied in 160, 170, 180, 196, 226 and 241-inch wheel base and worm axle.

WHITE

*Six-wheelers.

LYCOMING MOTORS OPENS PERMANENT MARINE MOTOR SHOW

Chicago, May 5.—A permanent exhibit of marine engines has been opened here by the Lycoming Manufacturing Company of Williamsport, Pa., officials of Frank-Reach, Inc., Lycoming distributors for the Chicago district, announced today.

The exhibit is located on the display floor of the Motor Boat Mart, on Navy Pier, and includes Lycoming marine engines shown here during the annual Motor Boat Show. All engines in the display are finished in sea green with expcsed parts gold plated.

Lycoming manufactures a complete line of marine engines, including fours, eights and twelves, in addition to automotive, aircraft and industrial power plants.

MACHINE FOR RABBET FIT WORK

The Gisholt Machine Company, Madison, Wis., has recently developed a special machine for the rabbet-fit operation on electric motor frames. This machine will perform the operation on both ends of several sizes of motor frames in three to four and two-thirds minutes each, floor to floor.

The machine has a forty-four-inch swing and carries one adjustable fixed carriage and one traversing carriage on the flat ways. These carriages each carry three tool slides and contain the necessary cams and mechanisms for actuating the slides.

An air-operated expanding mandrel attached to the spindle and supported in both carriages is provided to hold the frame, which is placed longitudinally by a locater stop mounted on top of the fixed carriage. When the air is turned on the piece is gripped in the bore of the punchings by three wide-faced jaw inserts. The traversing carriage is then moved up to the work by power and a center support carried on ball bearings and mounted on the housing enters the end of the expanding mandrel to provide more rigidity and accuracy. As soon as the work starts to rotate, the front slides on the two housings start feeding in and rough out surfaces.

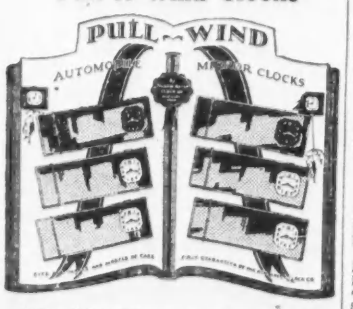
Reaching the end of their feeding stroke, the tools are held stationary for five revolutions of the work and are then retracted one-thirty-second of an inch. Finishing tools in the rear slides stay stationary during the first seventeen revolutions of the work and then start feeding in and reach the work as the roughing tools retract. The two finishing slides also carry chamfering tools to clean up the bur on the pilot diameters.

Sizing tools, which are held in the slides underneath the work, are timed to start cutting just when the finishing tools retract from their hold-up. These tools remove little metal, cleaning surfaces within the 0.0002-inch allowance.

As the tools complete their hold-up of three revolutions, the machine trips into traverse and the slides in both carriages return to their starting point, while the traversing carriage returns to the end of the ways, so that the piece finished may be removed from the machine.

Cemented tungsten carbide tools are used at cutting speeds, in accordance with the user's practice.

Pull to Wind Clocks



The New Haven Clock Company, New Haven, Conn., is offering a book-type display of its new "pull-to-wind" timepieces for automotive use. The company also has a new mirror and "pull-to-wind" clock combination.

Passenger Car Equipment and Accessories

NAME AND MODEL	Speedometer	Clock	Fuel Gauge on Dash	Lock	Spark Plugs	Battery	Heat Indicator	*Cig. Lighter	Smoking Set	Vanity Set	Make of Body Finish Used	Stop Light	Parking or Side Light	Safety Glass	Heater	Front Bumper	Rear Bumper	Wire Wheels	Shock Absorber
Auburn 8-100	—		—	—	Cha	USL	—	Cas	—	—	—		—	—	—	—	—	Day	*Del
Auburn 12-160	—	—	—	—	Cha	USL	—	Cas	—	—	—	Cor	Cor	—	—	—	—	Day	*Hou
Austin	NE	—	K-S	BS	Cha	USL	—	—	—	—	Duc	—	—	—	—	Cen	Cen	—	Own
Buick 32-50	AC	—	AC	—	AC	DR	AC	No	—	—	Duc	Gui	Gui	§Lof	—	—	—	K-H	*Del
Buick 32-60	AC	—	AC	—	AC	DR	AC	No	—	—	Duc	Gui	Gui	§Lof	—	—	—	K-H	*Del
Buick 32-80	AC	—	AC	—	AC	DR	AC	—	—	—	Duc	Gui	Gui	§Lof	—	—	—	K-H	*Del
Buick 32-90	AC	—	AC	—	AC	DR	AC	—	—	—	Duc	Gui	Gui	§Lof	*	—	—	K-H	*Del
Cadillac 370 B	—	—	—	—	AC	DR	—	Cas	—	—	—	Gui	Gui	LOF	—	—	—	K-H	*
Cadillac 452 B	—	—	—	—	AC	DR	—	Cas	—	—	—	Gui	Gui	LOF	—	—	—	K-H	*
Cadillac 355 L	—	—	—	—	AC	DR	—	Cas	—	—	—	Hal	Gui	LOF	—	—	—	—	*
Chevrolet	AC	—	AC	DR	AC	*	AC	—	Tern	—	Duc	Gui	Gui	§Lof	*	†Own	Own	Own	Del
Chrysler 6	—	No	Yes	—	—	—	Yes	Cas	No	No	—	—	—	§Dup	*	—	—	—	—
Chrysler 8	—	—	Yes	—	—	Wil	Yes	Cas	No	No	—	—	—	§Dup	*	—	—	—	—
Chrysler Imp. 8	—	Yes	—	—	—	Wil	Yes	Cas	No	No	—	—	—	§Dup	*	—	—	—	—
Chrysler Im. 8 Cus.	—	Yes	—	—	—	Wil	Yes	Cas	No	No	—	—	—	§Dup	*	—	—	—	—
Cord Front Drive	Ste	No	Mot-M	DR	Cha	USL	Ster	Cas	GR	No	Mur	Ind	Ind	—	No	ASP	ASP	Day	Hou
De Soto Six	NE	No	Mot-M	DR	AC	Wil	Yes	No	Yes	Yes	Duc	Cor	Hal	§Dup	No	Yes	Yes	—	Del
De Vaux 6-80	Ste	No	Mot-M	Yale	Cha	Nat	Mot-M	No	No	No	Duc	JB	JB	—	No	Gen	Gen	MotoW	Hou
Dodge Six	NE	—	AC	DR	AC	Wil	AC	—	VS	VS	Ditz	Cor	Cor	§	—	Yes	Yes	Budd	Del
Dodge Eight	NE	—	AC	DR	AC	Wil	AC	—	VS	VS	Ditz	Cor	Cor	§	—	Yes	Yes	Budd	Del
Essex Gr. Su. 6	Ste	—	Mot-M	Ele	AC	Ex	K-S	—	—	—	—	JB	JB	Dup	—	—	—	MotoW	*Mon
Ford A	Own	No	Yes	Hurd	Cha	Own	No	—	§	—	Own	Own	—	Yes	—	Yes	Yes	*	Hou
Ford V-8	Own	No	Yes	Hurd	Cha	Own	No	—	§	—	Own	Own	—	Yes	—	Yes	Yes	*	Hou
Franklin Airman	NE	Borg	Yes	—	Cha	Nat	No	Cas	Yes	Yes	**	—	—	LOF	No	Yes	Yes	No	* —
Franklin V 12	NE	Borg	Yes	—	Cha	Wil	No	Cas	Yes	No	**	Yes	Yes	Yes	No	Yes	Yes	No	*Yes
Graham 6	NE	—	K-S	Her	Cha	Wil	K-S	No	Yes	No	*	Hal	Cor	LOF	No	ASP	ASP	MotoW	Del
Graham BL. Str.	Ste	—	K-S	Her	Cha	Wil	K-S	No	Yes	No	*	Cor,	No	§Lof	No	†ASP	†ASP	MotoW	*Del
Hudson Gr. 8	Ste	—	Mot-M	Ele	AC	Ex	K-S	—	—	—	—	Hal	Hal	Dup	—	—	—	MotoW	*Gab
Hupmobile 216	Ste	No	Mot-M	Ele	—	Wil	Mot-M	No	—	—	Var	Hal	Hal	§Dup	No	—	—	—	*Gab
Hupmobile 222	Ste	No	Ste	Ele	—	Wil	Ste	No	—	—	Var	Hal	Hal	§Dup	No	—	—	—	*Gab
Hupmobile 226	Ste	No	Ste	Ele	—	Wil	Ste	Cas	—	—	Var	Hal	Hal	§Dup	No	—	—	—	*Gab
La Salle 345 B	—	—	—	—	AC	DR	—	Cas	—	—	—	Hal	Hal	LOF	—	—	—	K-H	*
Lincoln V 8	NE	Thom	K-S	Her	Cha	Ex	Mot-M	Cas	Cuno	Yes	*	Hal	Own	$	—	Bif	Bif	Own	Hou
Lincoln 12	NE	Wal	K-S	Her	Cha	Ex	Mot-M	Cas	VS	VS	—	Hal	Hal	$	No	Gen	Gen	—	Hou
Marmon 8-125	AC	Jag	AC	DR	Cha	Nat	AC	—	GR	—	*	Cor	—	—	—	Eat	Eat	Day	*Gab
Marmon 16	AC	Jag	Mot-M	DR	Cha	Ex	Mot-M	Cas	VS	VS	*	Hal	—	—	—	Eat	Eat	Moto-W	*Hou
Nash Big 6	Ste	No	K-S	Her	AC	USL	K-S	No	*	-	*	Cor	Cor	§Dup	—	Bad	Bad	MotoW	*Del
Nash Stand. 8	Ste	No	K-S	Her	AC	USL	K-S	No	*	—	*	Cor	Cor	§Dup	—	Bad	Bad	MotoW	*Del
Nash Special 8	Ste	No	K-S	Her	AC	USL	K-S	No	*	—	*	Cor	Cor	§Lof	—	Eat	Eat	MotoW	*Del
Nash Adv. 8	Ste	Borg	K-S	DR	AC	Ex	K-S	Cas	*	—	*	Cor	Cor	§Lof	—	Eat	Eat	MotoW	*Del
Nash Ambas. 8	Ste	Borg	K-S	DR	AC	Ex	K-S	Cas	*	—	*	Cor	Cor	§Lof	—	Eat	Eat	MotoW	*Del
Oldsmobile F 32	AC	No	AC	BS	AC	DR	AC	Yes	Tern	No	Duc	Gui	Gui	§Lof	—	Own	Own	K-H	*Lov
Oldsmobile L 32	AC	No	AC	BS	AC	DR	AC	Yes	Tern	No	Duc	Gui	Gui	§Lof	—	Own	Own	K-H	*Lov
Packard Stan. 8	NE	Jag	K-S	Yes	AC	Pre	Mot-M	Cas	Yes	Yes	Own	Hal	Yes	LOF	No	Cen	Cen	MotoW	*Del
Packard DeL. 8	NE	Jag	K-S	Yes	AC	Pre	Mot-M	Cas	Yes	Yes	Own	Hal	Yes	LOF	No	Cen	Cen	MotoW	*Del
Packard Light 8	Yes	No	Yes	Yes	Yes	Yes	Yes	Cas	Yes	—	—	Yes	Yes	Yes	—	Yes	Yes	—	*Yes
Packard Twin Six	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Cas	Yes	—	—	Yes	Yes	Yes	—	Yes	Yes	—	*Yes
Peerless Mast. 8	AC	Ster	Mot-M	Yale	Cha	Wil	Mot-M	Cas	GR	No	Val	Cor	Cor	Dup	—	Eat	Eat	Day	Gab
Peerless Cust. 8	AC	Ster	Mot-M	Yale	Cha	Wil	Mot-M	Cas	GR	No	Val	Cor	Cor	Dup	—	Eat	Eat	Day	Gab
Pierce-Arrow 54	NE	Borg	K-S	Her	Cha	Wil	K-S	Cas	—	Wood	—	Gui	Gui	Dup	No	Eat	Eat	K-H	*Del
Pierce-Arrow 52	NE	Borg	K-S	Her	AC	Wil	K-S	Cas	—	Wood	—	—	—	Dup	No	Eat	Eat	K-H	*Del
Pierce-Arrow 53	NE	Borg	K-S	Her	AC	Wil	K-S	Cas	VS	—	—	—	—	Dup	No	Eat	Eat	K-H	*Del
Plymouth	NE	—	Yes	Sha	AC	Wil	—	—	—	—	Duc	Cor	Co	§Dup	—	Gen	Gen	†	Del
Pontiac 6	—	—	—	—	AC	—	—	—	—	—	Duc	—	—	§Lof	—	—	—	—	*Lov
Pontiac V-8	—	—	—	—	AC	—	—	—	—	—	Duc	—	—	§Lof	—	—	—	—	*Lov
Reo Royale 8-35	Ste	Elgin	K-S	DR	Cha	Wil	AC	Cas	Yes	No	†	Gui	Gui	†	No	CG	CG	MotoW	Del
Reo Royale 8-31	Ste	No	K-S	DR	Cha	Wil	AC	Yes	Yes	No	†	Gui	Gui	—	No	CG	CG	MotoW	Del
Reo 8-21	NE	No	K-S	DR	Cha	Wil	K-S	No	No	No	—	*	*	No	No	CG	CG	—	Del
Reo 6-21	NE	No	K-S	DR	Cha	Wil	K-S	No	No	No	—	*	*	No	No	CG	CG	—	Del
Reo 625-825	Ste	—	K-S	DR	Cha	Wil	AC	Yes	Yes	No	†	—	Gui	†	No	CG	CG	MotoW	Del
Rockne 6-65	Ste	No	K-S	Aut-L	Cha	Wil	K-S	—	Yes	No	*	Cor	Cor	§Lof	No	Cen	Cen	K-H	Del
Rockne 6-75	AC	No	K-S	Aut-L	Cha	Wil	K-S	—	Yes	No	*	Cor	Cor	§Lof	No	Cen	Cen	K-H	Hou
Studebaker 6-55	Ste	No	AC	DR	Cha	Wil	Ste	No	Yes	—	*	Cor	Gui	$	No	—	—	K-H	Hou
Studebkr Dict. 62	Ste	No	AC	DR	Cha	Wil	Ste	No	Yes	—	*	Cor	Gui	$	No	—	—	K-H	Hou
Studeb'r Com. 71	Ste	No	AC	DR	Cha	Wil	Ste	No	Yes	—	*	Gui	Gui	$	No	—	—	K-H	*Hou
Studeb'r Pres. 91	Ste	Borg	AC	DR	Cha	Wil	Ste	Cas	Yes	—	*	Gui	Gui	$	No	—	—	K-H	*Hou
Stutz LAA	Ste	Wal	Mot-M	DR	Cha	Pre	Mot-M	Cas	No	Lin	*	Cor	Cor	Dup	—	Buck	Buck	MotoW	Gab
Stutz MA	Ste	Wal	Mot-M	Her	Cha	Pre	Mot-M	Cas	Lin	Lin	*	Cor	Cor	Dup	—	Stan	Stan	MotoW	Gab
Stutz MB	Ste	Wal	Mot-M	Her	Cha	Pre	Mot-M	Cas	Lin	Lin	*	Cor	Cor	Dup	—	Stan	Stan	MotoW	Gab
Stutz DV. 32	Ste	Wal	Mot-M	Her	Cha	Pre	Mot-M	Cas	Lin	Lin	*	Cor	Cor	Dup	—	Stan	Stan	MotoW	Gab
Willys-Over. 6-90	NE	No	Yes	Aut-L	Cha	USL	No	No	No	—	—	—	—	§Lof	No	—	—	—	Mon
Willys-Over 8-88	No	No	Yes	Aut-L	Cha	USL	Yes	No	No	—	—	—	—	LOF	No	-	—	—	Mon
Willys-Knt. 66 D	No	Wal	Yes	Aut-L	Cha	USL	Yes	Yes	—	—	—	—	—	LOF	No	—	—	—	Mon
Willys-Knt. 95	No	No	Yes	Aut-L	Cha	USL	Yes	No	—	—	—	—	—	LOF	No	—	—	—	Mon

KEY TO ABBREVIATIONS USED IN THIS TABLE

SPEEDOMETER
AC—AC Spark Plug Co., Flint, Mich.
NE—North East Appliance Corp.
Ste—Stewart-Warner Speedometer Corp.
Var—Various makes.

CLOCK
Borg—The Geo. W. Borg Corporation.
Elgin—Elgin Watch Co.
Jag—Jaeger Watch Co., New York city.
Ster—Sterling Clock Co., La Salle, Ill.
Thom—Seth Thomas Clock Co.
Wal—Waltham Watch Co., Waltham, Mass
*Optional.

FUEL GAUGE
AC—AC Spark Plug Co., Flint, Mich.
K-S—King Seeley Corp., Ann Arbor, Mich.
Mot-M—Moto Meter Gauge and Equipment Corp., Long Island City, N. Y., and La Crosse, Wis.

LOCK
Aut-L—Electric Auto-Lite Co., Toledo.
BS—Briggs-Stratton Co., Milwaukee.
Ele—Mitchell Specialty Co., Holmesburg, Pa.
DR—Delco-Remy Corp., Anderson, Ind.
Her—Hershey Mfg. Co., Chicago.
Oak—Oakes Products Corp., Chicago, Ill.
Sha—Shaler Lock Co., Milwaukee, Wis.
Yale—Yale & Towne Mfg. Co.

SPARK PLUG
AC—AC Spark Plug Co., Flint, Mich.
Cha—Champion Spark Plug Co., Toledo, O.

BATTERY
DR—Delco-Remy Corp.
Ex—Electric Storage Battery Co.
Nat—National Lead Battery Co., St. Paul.
Pre—Pres-O-Lite Co., Indianapolis, Ind.
USL—USL Battery Corp.
Wil—Willard Storage Battery Co.
*Various makes—Exide, Willard, Delco-Remy and USL.

HEAT INDICATOR
AC—AC Spark Plug Co., Flint, Mich.
K-S—King Seeley Corp., Ann Arbor, Mich.
Mot-M—Moto Meter Gauge and Equipment Corp., Long Island City, N. Y., and La Crosse, Wis.
Ste—Stewart-Warner Speedometer Corp.
Ster—Sterling Clock Co., La Salle, Ill.

CIGAR LIGHTER
*Cigar lighters in many cases are optional equipment, and are not standard on all models; the names of lighters shown indicate the makes supplied to various car makers.
Cas—Casco Products Corp., Bridgeport, Conn.
NE—North East Appliance Corp., Rochester, N. Y.

SMOKING AND VANITY SETS
GR—Grand Rapids Metalcraft Corp.
Lin—Linden.
VS—Van Sicklen Corp., Elgin, Ill.
Tern—Ternstedt Mfg. Co., Detroit, Mich.
Cuno—Cuno Engineering Corp., Meriden, Conn.
Wood—Woodcraft.
*Various makes
§De Luxe models only

BODY FINISHES
Ditz—Ditzler Color Co., Detroit, Mich.
Duc—E. I. du Pont de Nemours & Co., Philadelphia.
MIM—Pittsburgh Plate Glass Co.
Mur—Murphy Varnish Co., Newark, N. J.
Rin—Rinched Mason Co.
Val—Valentine & Co., New York city.
*Various lacquers used.
†Using both Ditzler and Pratt & Lambert
**Using both Duco and Valentine.

STOP AND PARKING LIGHTS
Cor—The Corcoran-Brown Lamp Co., Cincinnati, O.
Gui—Guide Lamp Corp., Anderson, Ind.
Hal—C. M. Hall Lamp Co., Detroit, Mich.
Ind—Indiana Lamp Corp., Connersville, Ind.
JB—The Jno. W. Brown Lamp Mfg. Co., Columbus, O.
*Using both Hall or Guide.
**Using both Corcoran and Brown.

SAFETY GLASS
LOF—Libbey-Owens-Ford.
Dup—Duplate Corp.
§Optional.
†Extra equipment.
$Using both Libby-Owen-Ford and Duplate.

HEATER
Kel—Kelch made by Grand Rapids Metalcraft Corp., Grand Rapids, Mich.

BUMPERS
ASP—Alloy Steel Products.
Bad—Badger Mfg. Corp., Milwaukee.
Bif—Biflex Corp., Waukegan, Ill.
Buck—See Cen.
CG—C. G. Spring and Bumper Company
Cen—Central Brass & Fixture Co., Springfield, O. Also makers of Buckeye bumpers.
Eat—Eaton Axle and Spring Co., Cleveland, O.
Gen—General Spring and Bumper, Detroit.
Stan—Standard Steel Spring Corp.
†Extra equipment.
*Optional.

WIRE WHEELS
Budd—Budd Wheel Co., Detroit.
MotoW—Motor Wheel Corp., Lansing, Mich.
Day—Dayton Wire Wheel Co., Dayton, O.
K-H—Kelsey-Hayes, Detroit, Mich.
‡Using both Kelsey-Hayes and Motor Wheel Corp.
†Not standard equipment.

SHOCK ABSORBERS
Del—Delco Products Corp., Dayton, O.
Gab—The Gabriel Company, Cleveland.
Hou—Houde Engineering Corp., Buffalo.
Mon—Monroe Auto Equip. Mfg. Co., Monroe, Mich.
*Equipped with ride control

IMPERIAL BRASS GETS DIRIGIBLE CONTRACT

Chicago, May 5.—The Imperial Brass Manufacturing Company has been awarded the contract for the building of the sanitary equipment to be used on the sister ship of the Akron, namely, the Macon ZRS-5.

The Imperial Brass Manufacturing Company also furnished the equipment for the Akron, the world's largest dirigible. All fixtures have been designed specially for aeronautical installations where compactness and light weight are of primary importance.

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